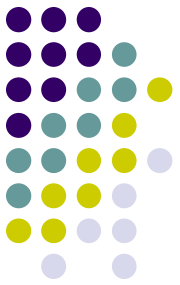


Q

## Congenital Ptosis

*What is the 'proper' term for eyelid ptosis?*

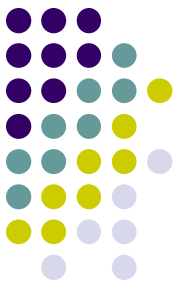


# A

## Congenital Ptosis

*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**



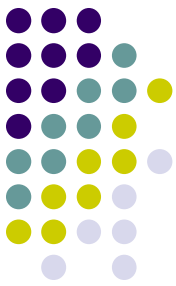
Q

## Congenital Ptosis

*What is the 'proper' term for eyelid ptosis?*

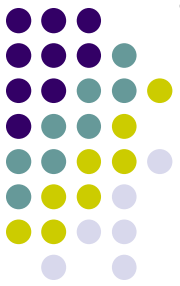
**Blepharoptosis**

*What is the formal definition of ptosis?*



# A

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

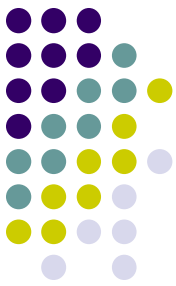
**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

# Q

## Congenital Ptosis



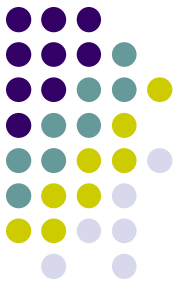
*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is **pseudoptosis**?*



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

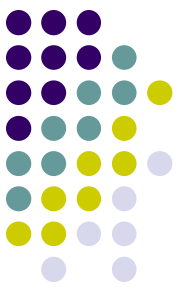
Inferodisplacement of the upper lid

*What is **pseudoptosis**?*

Apparent inferodisplacement of the lid secondary to a non-lid condition

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is **pseudoptosis**?*

Apparent inferodisplacement of the lid secondary to a non-lid condition

*The Peds book lists two causes of pseudoptosis that might mimic congenital ptosis—what are they?*



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is **pseudoptosis**?*

Apparent inferodisplacement of the lid secondary to a non-lid condition

*The Peds book lists two causes of pseudoptosis that might mimic congenital ptosis—what are they?*

Microphthalmia and hypotropia. Make sure you're not missing one of these before locking in on a dx of congenital ptosis!



## Congenital Ptosis



Microphthalmia

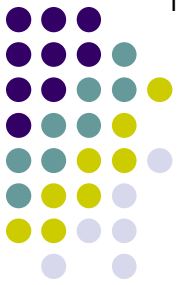


Hypotropia

Pseudoptosis

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

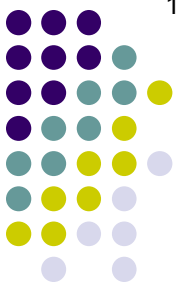
*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two very general forms of ptosis?*

# A

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

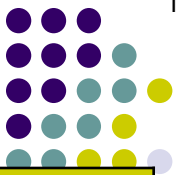
Inferodisplacement of the upper lid

*What are the two very general forms of ptosis?*

Congenital and acquired

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two very general forms of ptosis?*

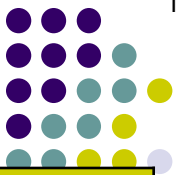
Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

### ***Lid-related observations in the ptosis patient***

?
?
?
?
?
?



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two very general forms of ptosis?*

Congenital and acquired

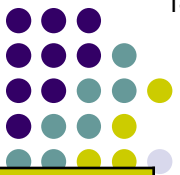
*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

<b><i>Lid-related observations in the ptosis patient</i></b>
MRD1
MRD2
Vertical fissure height
Upper lid crease position
Levator function
Presence of lagophthalmos



## Congenital Ptosis



*What does MRD stand for in this context?*

**Key observations in the ptosis patient**

**MRD1**

**MRD2**

Vertical fissure height

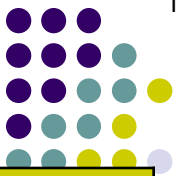
Upper lid crease position

Levator function

Presence of lagophthalmos

*What are the two very general forms of ptosis?*  
Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.  
What are they?*



*What does MRD stand for in this context?*

Margin-reflex distance

**Key observations in the ptosis patient**

MRD<sub>1</sub>

MRD<sub>2</sub>

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

*What are the two very general forms of ptosis?*

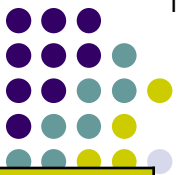
Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*



## Congenital Ptosis



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

**MRD<sub>1</sub>**

**MRD<sub>2</sub>**

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos





*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

MRD1

MRD2

Vertical fissure height

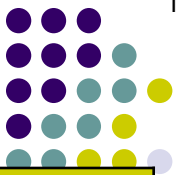
Upper lid crease position

Levator function

Presence of lagophthalmos



## Congenital Ptosis



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...

MRD2 is...

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

**MRD1**

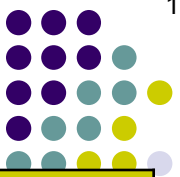
MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...the distance between the reflex and the upper-lid margin

MRD2 is...

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

**MRD1**

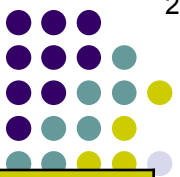
MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...the distance between the reflex and the upper-lid margin

MRD2 is...

*What is the normal value for MRD1?*

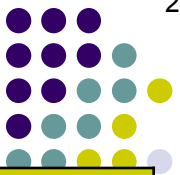
*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

Six observations in the ptosis patient	
MRD1	
MRD2	
Lid crease height	
Upper lid crease position	
Levator function	
Presence of lagophthalmos	



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...the distance between the reflex and the upper-lid margin

MRD2 is...

*What is the normal value for MRD1?*

4.5 mm (per the BCSC Plastics book)

*What are the two very general forms of ptosis?*

Congenital and acquired

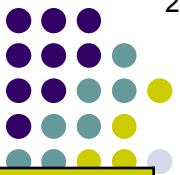
*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

Six observations in the ptosis patient	
MRD1	
MRD2	
Lid crease height	
Upper lid crease position	
Levator function	
Presence of lagophthalmos	

# Q

## Congenital Ptosis



What does MRD stand for in this context?

Margin-reflex distance

To what does the word reflex refer?

The corneal light reflex

What are these specific measurements?

MRD1 is... the distance between the reflex and the upper-lid margin

MRD2 is

What if the ptosis is so significant that the reflex is not visible, ie, it is hidden by the ptotic upper lid?

Observations in ptosis patient

MRD1

MRD2

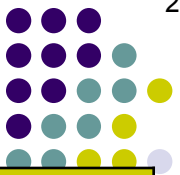
Upper lid height

crease position

function

gophthalmos

made.



What does MRD stand for in this context?

Margin-reflex distance

To what does the word reflex refer?

The corneal light reflex

What are these specific measurements?

MRD1 is... the distance between the reflex and the upper-lid margin

MRD2 is

What if the ptosis is so significant that the reflex is not visible, ie, it is hidden by the ptotic upper lid?

Then the MRD1 is defined as the distance the upper lid has to be **elevated** in order for the reflex to be seen, and is assigned a **negative** value. So, eg, if the upper-lid margin has to be elevated 2 mm in order for the reflex to be seen, MRD1 is -2 mm.

Observations in ptosis patient

MRD1

MRD2

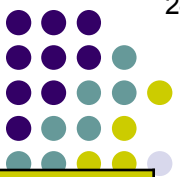
Upper lid height

Crease position

Function

Gonioscopy

made.



*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...the distance between the reflex and the upper-lid margin

MRD2 is...

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

MRD1

**MRD2**

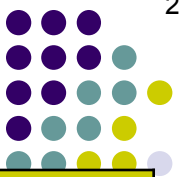
Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos





*What does MRD stand for in this context?*

Margin-reflex distance

*To what does the word reflex refer?*

The corneal light reflex

*What are these specific measurements?*

MRD1 is...the distance between the reflex and the upper-lid margin

MRD2 is...the distance between the reflex and the **lower**-lid margin

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

**Six observations in the ptosis patient**

MRD1

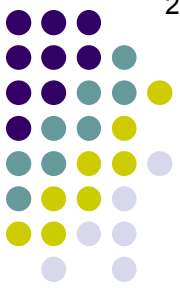
**MRD2**

Vertical fissure height

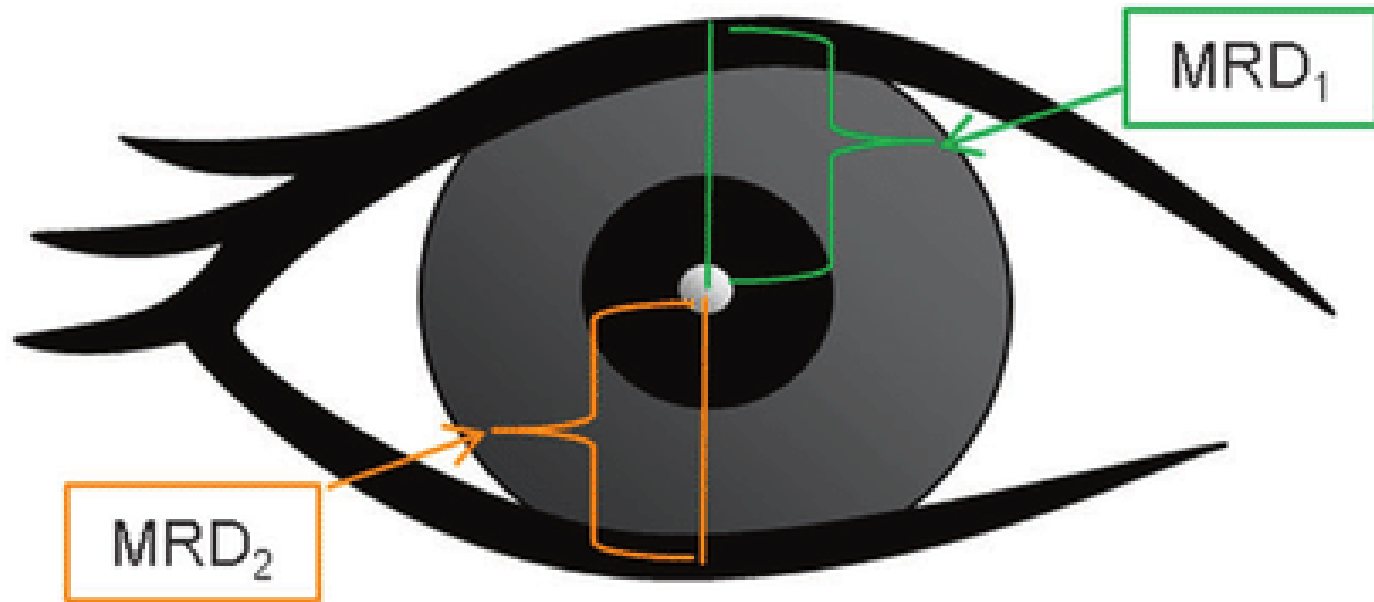
Upper lid crease position

Levator function

Presence of lagophthalmos



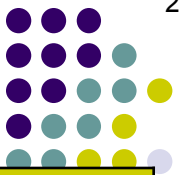
## Congenital Ptosis



MRD1&2

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*How is vertical fissure height quantified?*

*What are the causes of congenital ptosis?*

Congenital

*In evaluation of congenital ptosis, what are the key observations?*

*What are they?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

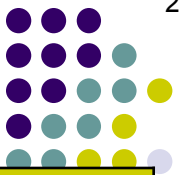
**Vertical fissure height**

Upper lid crease position

mos

# A

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*How is vertical fissure height quantified?*

It is the distance between the upper- and lower-lid margins

*What are the causes of congenital ptosis?*

Congenital

*In evaluation of congenital ptosis, what are the key observations?*

*What are they?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

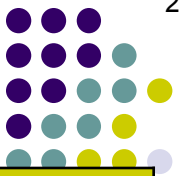
**Vertical fissure height**

Upper lid crease position

mos

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*How is vertical fissure height quantified?*

It is the distance between the upper- and lower-lid margins

*What are the causes of congenital ptosis?*

Congenital

*What is the relationship between vertical fissure height and MRD1/MRD2?*

*In evaluation of congenital ptosis, what are the key observations?*

*What are they?*

### ***Lid-related observations in the ptosis patient***

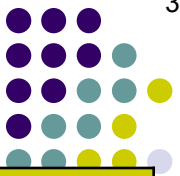
MRD1

MRD2

**Vertical fissure height**

Upper lid crease position

mos



What is the 'proper' term for eyelid ptosis?

Blepharoptosis

What is the formal definition of ptosis?

Inferodisplacement of the upper lid

How is vertical fissure height quantified?

It is the distance between the upper- and lower-lid margins

What a

Conger

What is the relationship between vertical fissure height and MRD1/MRD2?

Assuming all have been measured correctly, vertical fissure height will be equal to  $MRD1 + MRD2$

In eval

What are they?

### **Lid-related observations in the ptosis patient**

**MRD1**

+

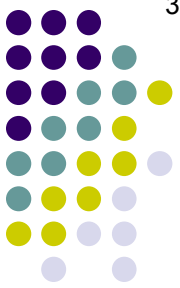
**MRD2**

=

**Vertical fissure height**

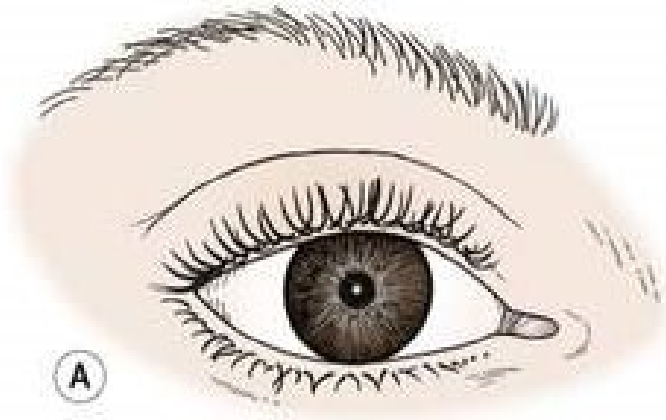
Upper lid crease position

mos

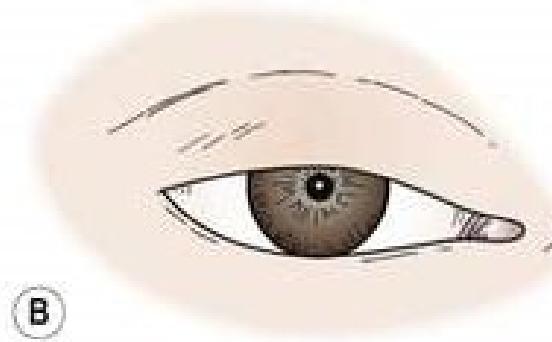


## Congenital Ptosis

Normal  
 $MRD_1 = 4 \text{ mm}$   
 $MRD_2 = 5 \text{ mm}$   
~~Palpebral fissure = 9~~  
 Vertical fissure height



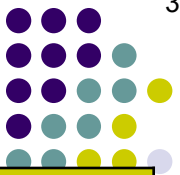
Upper lid ptosis  
 $MRD_1 = 2 \text{ mm}$   
 $MRD_2 = 5 \text{ mm}$   
~~Palpebral fissure = 7~~  
 Vertical fissure height



MRD and vertical fissure height



## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the causes of congenital ptosis?*

*Anatomically speaking, what structures create the upper lid crease?*

*In evaluation, what are the key findings?*

*What are the treatment options?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

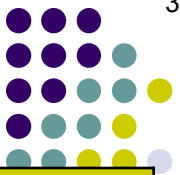
**Upper lid crease position**

Levator function



# A

## Congenital Ptosis



What is the 'proper' term for eyelid ptosis?

**Blepharoptosis**

What is the formal definition of ptosis?

Inferodisplacement of the upper lid

What are the clinical observations in the ptosis patient?

Congenital

In evaluation

What are the clinical observations in the ptosis patient?

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

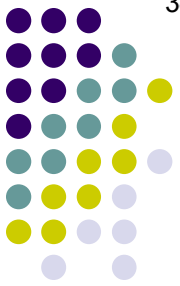
**Upper lid crease position**

Levator function

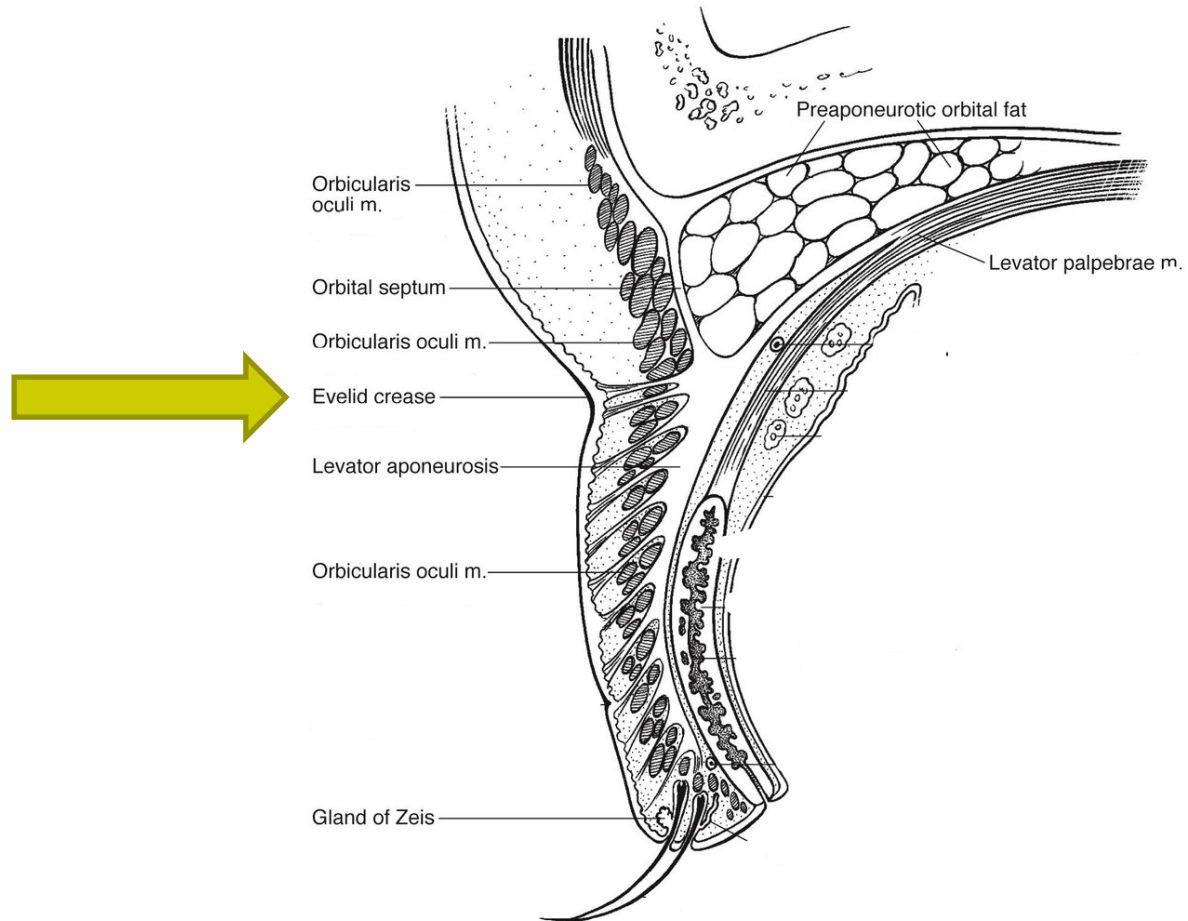
*Anatomically speaking, what structures create the upper lid crease?*

As the aponeurosis of the levator muscle approaches the tarsal plate, it splits into anterior and posterior portions. The anterior portion consists of fine tendrils of aponeurotic material, some of which will attach to the skin overlying the superior margin of the tarsus. These attachments draw the skin inward, thereby producing the eyelid **crease**. This indrawing of skin causes the skin, muscle and fat superior to the crease to 'overhang;' this overhang is called the eyelid **fold**.

(In case you were wondering: The *posterior* portion of the aponeurosis inserts on the tarsal plate.)



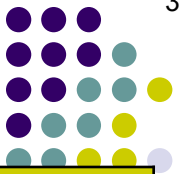
# Congenital Ptosis



Eyelid crease

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is the formal definition of ptosis?*  
*How is upper lid crease position quantified?*

Congenital

In evaluation

What is

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

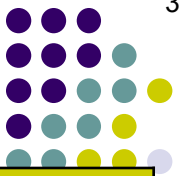
Vertical fissure height

**Upper lid crease position**

Levator function

of lagophthalmos

be made.



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is the formal definition of ptosis?*

Congenital ptosis is defined as the inferior displacement of the upper lid margin. *How is upper lid crease position quantified?*  
By measuring the distance between it and the upper-lid margin

*In evaluation of congenital ptosis, the following observations should be made.*

*What are the lid-related observations in the ptosis patient?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

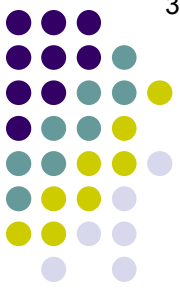
Vertical fissure height

**Upper lid crease position**

Levator function

of lagophthalmos

*be made.*



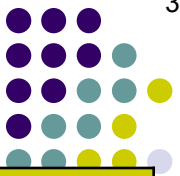
## Congenital Ptosis



Lid crease measurement

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What is upper lid crease position quantified?*

Congenital By measuring the distance between it and the upper-lid margin

*In evaluation, what are typical values for this measure?*

*What are*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

**Upper lid crease position**

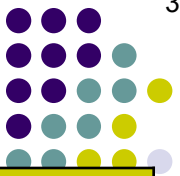
Levator function

of lagophthalmos

be made.

# A

## Congenital Ptosis



What is the 'proper' term for eyelid ptosis?

**Blepharoptosis**

What is the formal definition of ptosis?

Inferodisplacement of the upper lid

What is the formal definition of ptosis?

Congenital ptosis: How is upper lid crease position quantified?  
By measuring the distance between it and the upper-lid margin

In evaluation of congenital ptosis: What are typical values for this measure?

Well, the *Plastics* book only gives values for Caucasians...

### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

**Upper lid crease position**

Levator function

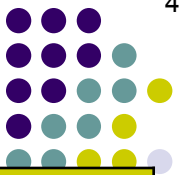
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# Q

## Congenital Ptosis



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What are typical values for this measure?  
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those values are # to # for males, # to # for females.

### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

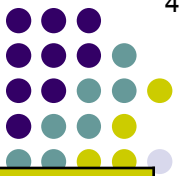
**Upper lid crease position**

Levator function

of lagophthalmos

be made.





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### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

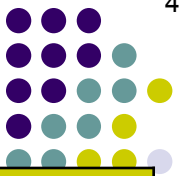
Vertical fissure height

**Upper lid crease position**

Levator function

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## Congenital Ptosis

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Congenital By measuring the distance between it and the upper-lid margin

*In evaluation, what are typical values for this measure?*

*What are typical values for this measure?*  
Well, the *Plastics* book only gives values for Caucasians... those values are 8-9 mm for males, 9-11 mm for females. The book goes on to say the crease "is typically lower or obscured in the Asian eyelid, with or without ptosis."

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

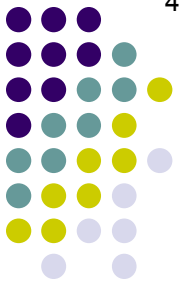
Vertical fissure height

**Upper lid crease position**

Levator function

of lagophthalmos

be made.



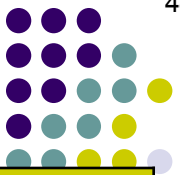
## Congenital Ptosis



Lid crease is often poorly defined or absent in congenital ptosis

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

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*What are the two very general forms of ptosis?*

Congenital and acquired

*How is levator function quantified?*

*In evaluation*

*What are they?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

Upper lid crease position

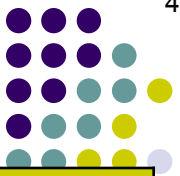
**Levator function**

Presence of lagophthalmos

*...e made.*

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*What are they?*

*How is levator function quantified?*

It is the distance between the locations of the upper-lid margin when the pt is in down- and upgaze

*...e made.*

### ***Lid-related observations in the ptosis patient***

MRD1

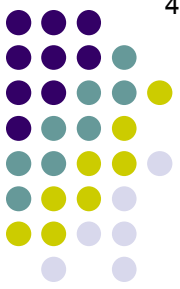
MRD2

Vertical fissure height

Upper lid crease position

**Levator function**

Presence of lagophthalmos



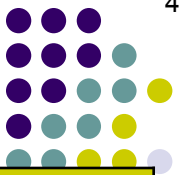
## Congenital Ptosis



Levator function measurement

# Q

## Congenital Ptosis



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*In evaluation*

*What are they?*

*What important qualifier is placed on measuring levator function?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

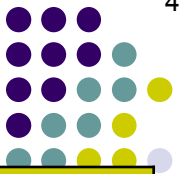
Vertical fissure height

Upper lid crease position

**Levator function**

Presence of lagophthalmos

*...e made.*



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The measurement must be performed in way that prevents the

muscle from assisting lid elevation

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

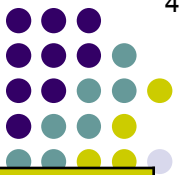
Upper lid crease position

**Levator function**

Presence of lagophthalmos

be made.





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The measurement must be performed in way that prevents the frontalis muscle from assisting lid elevation

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

Upper lid crease position

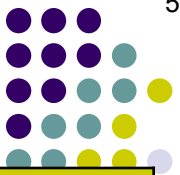
**Levator function**

Presence of lagophthalmos

*...e made.*



## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

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*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two types of congenital ptosis?*

Congenital and acquired

*In evaluating a ptosis patient, what should be made.*

*What are they?*

*What is lagophthalmos?*

### ***Lid-related observations in the ptosis patient***

MRD1

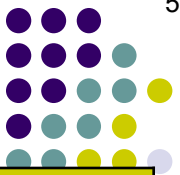
MRD2

Vertical fissure height

Upper lid crease position

Levator function

**of lagophthalmos**



*What is the 'proper' term for eyelid ptosis?*

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*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two*

Congenital and acquired

*In evaluating a pt*

*What are they?*

*What is lagophthalmos?*

Failure of the lids to close completely

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

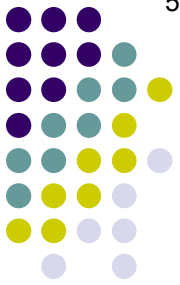
Vertical fissure height

Upper lid crease position

Levator function

**lagophthalmos**

*be made.*



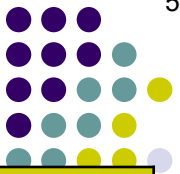
## Congenital Ptosis



Lagophthalmos OD

# Q

## Congenital Ptosis



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Inferodisplacement of the upper lid

*What are the two*

Congenital and acquired

*What is lagophthalmos?*

Failure of the lids to close completely

*In evaluating a ptotic lid*

*What are they?*

*Hol up--why wouldn't a ptotic lid close completely? be made.*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

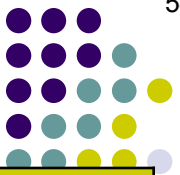
Upper lid crease position

Levator function

**lagophthalmos**

# A

## Congenital Ptosis



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Congenital and acquired

*In evaluating a ptotic lid*

*What are they?*

*What is lagophthalmos?*

Failure of the lids to close completely

*Hold up--why wouldn't a ptotic lid close completely?*

We'll get to that shortly

**of lagophthalmos**

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

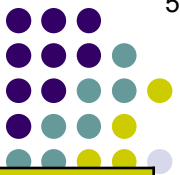
Vertical fissure height

Upper lid crease position

Levator function

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*Of these six, which measurement does the Plastics book single out as being the most useful/important?*

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What are they?*

### ***Lid-related observations in the ptosis patient***

*MRD1?*

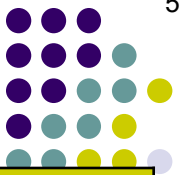
*MRD2?*

*Vertical fissure height?*

*Upper lid crease position?*

*Levator function?*

*Presence of lagophthalmos?*



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**MRD1**

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*What are they?*

***Lid-related observations in the ptosis patient***

**MRD1!**

MRD2

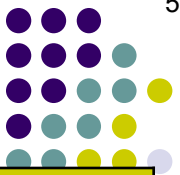
Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos





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*In evaluating a ptosis pt, six observations/measurements*

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*In evaluating a ptosis pt, six **non-lid** observations/measurements should be made.*

*What are they?*

### ***Lid-related observations in the ptosis patient***

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

?

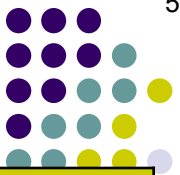
?

?

?

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MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

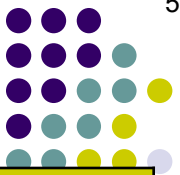
Corneal sensitivity

Bell's phenomenon

Visual acuity

Refractive error

EOMs



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*In the context of a ptosis eval, what pupil finding would be particularly noteworthy?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

**Pupils**

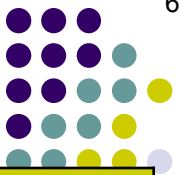
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**Anisocoria**

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MRD1

MRD2

Vertical fissure height

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Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

**Pupils**

Corneal sensitivity

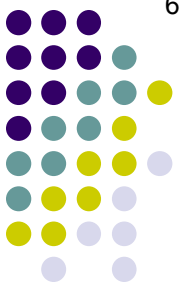
Bell's phenomenon

Visual acuity

Refractive error

EOMs

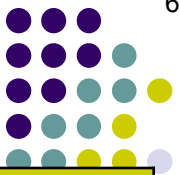
## Congenital Ptosis



Ptosis with anisocoria

# Q

## Congenital Ptosis



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**Anisocoria**

*If the pupil on the ptotic side is the smaller one, what dx rises to the top?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

**Pupils**

Corneal sensitivity

Bell's phenomenon

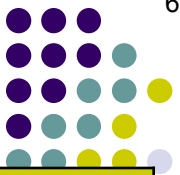
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Horner syndrome

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MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

**Pupils**

Corneal sensitivity

Bell's phenomenon

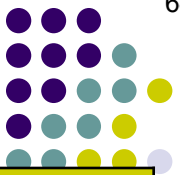
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MRD1

MRD2

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Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

**Pupils**

Corneal sensitivity

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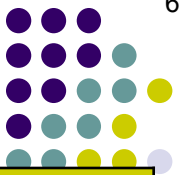
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CN3 palsy

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MRD2

Vertical fissure height

Upper lid crease position

Levator function

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### **Other things you gotta check**

**Pupils**

Corneal sensitivity

Bell's phenomenon

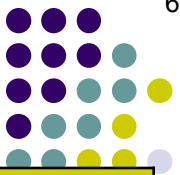
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**What is Bell's phenomenon?**

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MRD1

MRD2

Vertical fissure height

Upper lid crease position

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**What is Bell's phenomenon?**

A reflex in which unsuccessful lid closure cause the globe to roll up and laterally

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

Corneal sensitivity

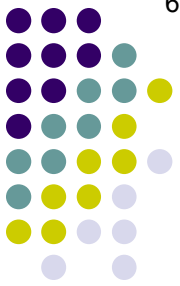
**Bell's phenomenon**

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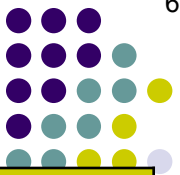
## Congenital Ptosis



Bell's phenomenon

# Q

## Congenital Ptosis



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*In evaluating a ptosis pt, six observations/measurements*

*Why must corneal sensitivity and Bell's phenomenon be assessed?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

**Corneal sensitivity**

**Bell's phenomenon**

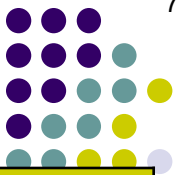
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*In evaluating a ptosis pt, six observations/measurements*

**Why must corneal sensitivity and Bell's phenomenon be assessed?**

Ptosis often necessitates lid-elevation surgery, which may leave the ocular surface exposed. Thus, it is of paramount importance that the surgeon be aware of the status of the eye regarding corneal sensitivity and Bell's phenomenon, as these factors play a vital role in surface health.

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

Pupils

**Corneal sensitivity**

**Bell's phenomenon**

Visual acuity

Refractive error

EOMs

# Q

## Congenital Ptosis



*What is the 'proper' term for eyelid ptosis?*

**Blepharoptosis**

*What is the formal definition of ptosis?*

Inferodisplacement of the upper lid

*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What makes VA of particular concern in ptosis?*

*In evaluating a ptosis pt, six non-lid observations/measurements should be made. What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

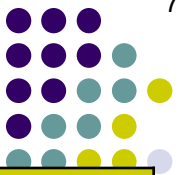
Corneal sensitivity

Bell's phenomenon

**Visual acuity**

Refractive error

EOMs



*What is the 'proper' term for eyelid ptosis?*

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*What makes VA of particular concern in ptosis?*

Congenital ptosis is strongly associated with  

*In evaluating a ptosis pt, six non-lid observations/measurements should be made.*

*What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

Corneal sensitivity

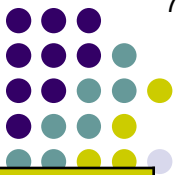
Bell's phenomenon

**Visual acuity**

Refractive error

EOMs





*What is the 'proper' term for eyelid ptosis?*

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*What are the two very general forms of ptosis?*

Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements should be made.*

*What makes VA of particular concern in ptosis?*

Congenital ptosis is strongly associated with amblyopia

*In evaluating a ptosis pt, six non-lid observations/measurements should be made.*

*What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

Corneal sensitivity

Bell's phenomenon

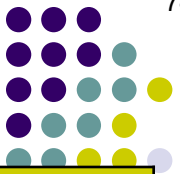
**Visual acuity**

Refractive error

EOMs

# Q

## Congenital Ptosis



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*Obviously, if the ptotic lid covers the pupillary aperture, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern?*

**amblyopia**

*Observations/measurements should be made.*

*What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

Pupils

Corneal sensitivity

Bell's phenomenon

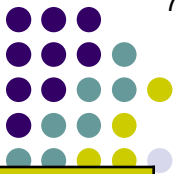
**Visual acuity**

Refractive error

EOMs

# Q/A

## Congenital Ptosis



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Congenital and acquired

Obviously, if the ptotic lid covers the pupillary aperture, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern? Indeed it is—both [redacted] and [redacted] amblyopia are associated with congenital ptosis

**amblyopia**

Observations/measurements should be made.

*What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

Pupils

Corneal sensitivity

Bell's phenomenon

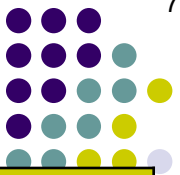
**Visual acuity**

Refractive error

EOMs

# A

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**amblyopia**

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*What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

Pupils

Corneal sensitivity

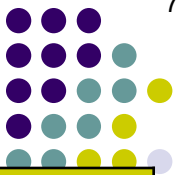
Bell's phenomenon

**Visual acuity**

Refractive error

EOMs

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Obviously, if the ptotic lid covers the pupillary aperture, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern? Indeed it is—both strabismic and **refractive amblyopia** are associated with congenital ptosis.

**amblyopia**

**refractive**

Observations/measurements should be made.

What are they?

*This is why assessing refractive error is an important component of a congenital ptosis workup*

## Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

## Other things you gotta check

Pupils

Corneal sensitivity

Bell's phenomenon

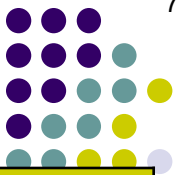
Visual acuity

**Refractive error**

EOMs

# Q

## Congenital Ptosis



What is the 'proper' term for eyelid ptosis?

**Blepharoptosis**

What is the formal definition of ptosis?

Inferodisplacement of the upper lid

What are the two v

Congenital and ac

What refractive problem is associated with virtually all forms of congenital ptosis?

Obviously, if the ptotic lid covers the visual axis, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern? Indeed it is—both strabismic and refractive amblyopia are associated with congenital ptosis. Observations/measurements should be made.

What are they?

This is why assessing refractive error is an important component of a congenital ptosis workup

### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Ptosis

Corneal sensitivity

Bell's phenomenon

Visual acuity

**Refractive error**

EOMs

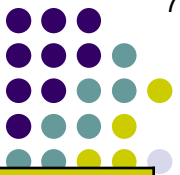


**refractive**

**amblyopia**

# A

## Congenital Ptosis



What is the 'proper' term for eyelid ptosis?

**Blepharoptosis**

What is the formal definition of ptosis?

Inferodisplacement of the upper lid

What are the two v

Congenital and ac

What refractive problem is associated with virtually all forms of congenital ptosis?

Astigmatism

Obviously, if the ptotic lid covers the visual axis, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern? Indeed it is—both strabismic and refractive amblyopia are associated with congenital ptosis. Observations/measurements should be made.

What are they?

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### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Ptosis

Corneal sensitivity

Bell's phenomenon

Visual acuity

**Refractive error**

EOMs

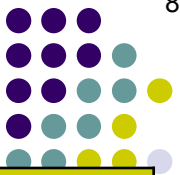


**refractive**

**amblyopia**

# Q

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What refractive problem is associated with virtually all forms of congenital ptosis?

Astigmatism

Does the astigmatism resolve after successful ptosis surgery?

Obviously, if the ptotic lid covers the visual aperture, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern?

Indeed it is—both strabismic and **refractive amblyopia** are associated with congenital ptosis

Observations/measurements should be made.

What are they?

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MRD1

MRD2

Vertical fissure height

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Levator function

Puters

Corneal sensitivity

Bell's phenomenon

Visual acuity

**Refractive error**

EOMs



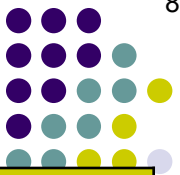
**refractive**

**amblyopia**



# A

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What are the two v

Congenital and ac

What refractive problem is associated with virtually all forms of congenital ptosis?

Astigmatism

Does the astigmatism resolve after successful ptosis surgery?

Generally **not**--so be sure to re-refract after surgery

Obviously, if the ptotic lid covers the visual aperture, deprivational amblyopia can result. If the aperture is open, is amblyopia still a concern?

Indeed it is—both strabismic and **refractive amblyopia** are associated with congenital ptosis

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MRD2

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Pupils

Corneal sensitivity

Bell's phenomenon

Visual acuity

**Refractive error**

EOMs

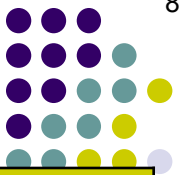
**amblyopia**

**refractive**



# Q

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*In evaluating a ptosis pt, six observations/measurements*

*What are they?*

*In evaluating a ptosis pt, six non-lid*

*observations/measurements should be made*

*What two EOM issues are of particular concern when evaluating congenital ptosis?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

Corneal sensitivity

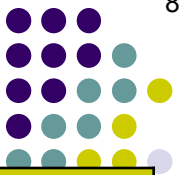
Visual field

Refractive error

**EOMs**

# Q/A

## Congenital Ptosis



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*In evaluating a ptosis pt, six non-lid*

*observations/measurements should be made*

*What two EOM issues are of particular concern when evaluating congenital ptosis?*

--Ruling out a **third** palsy

--Assessing for the presence of **three words** (aka **three diff words**)

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### **Other things you gotta check**

Pupils

Corneal sensitivity

Visual field

Visual evoked response

Refractive error

**EOMs**

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*What two EOM issues are of particular concern when evaluating congenital ptosis?*

--Ruling out a CN3 palsy

--Assessing for the presence of monocular elevation deficiency (aka double elevator palsy)

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### ***Other things you gotta check***

Pupils

Corneal sensitivity

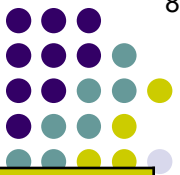
Convergence

Refractive error

**EOMs**

# Q

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In evaluation

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In evaluation

observations

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### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### Other things you gotta check

Corneal reflex

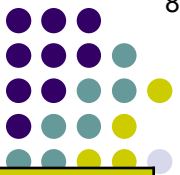
Visual sensitivity

Refractive error

**EOMs**

# A

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MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### Other things you gotta check

Check

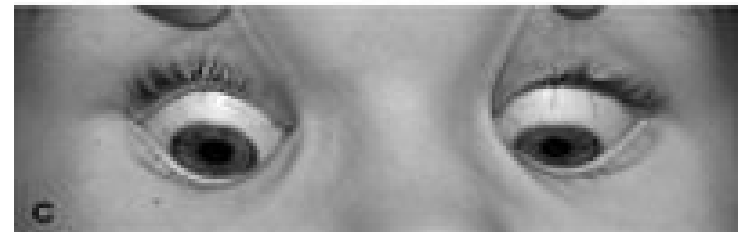
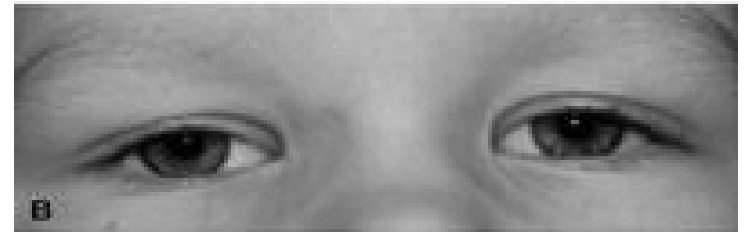
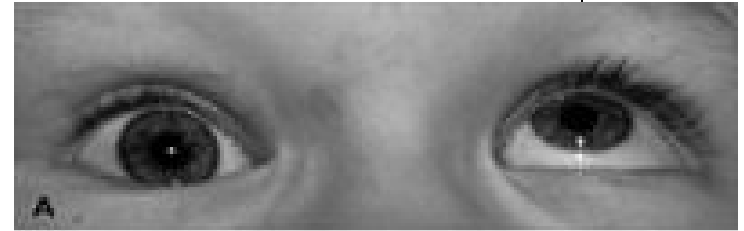
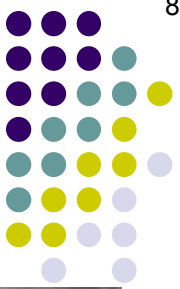
Boils

Sensitivity

Refractive error

**EOMs**

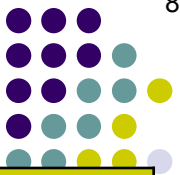
# Congenital Ptosis



Double elevator palsy

# Q

## Congenital Ptosis



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### Lid-related observations in the ptosis patient

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### Other things you gotta check

Check

Boils

Sensitivity

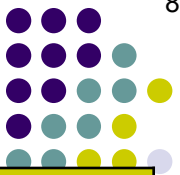
Refractive error

**EOMs**



# A

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MRD1

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Upper lid crease position

Levator function

Presence of lagophthalmos

### Other things you gotta check

Check

Boils

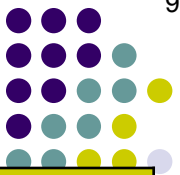
Sensitivity

Refractive error

**EOMs**

# Q

## Congenital Ptosis



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Congenital and acquired

*In evaluating a ptosis pt, six observations/measurements*

*What are they?*

*In evaluating a ptosis pt, six non-lid observations/measurements should be made.*

*What Ptosis etiology can be classified into six categories. What are they?*

### *Lid-related observations in the ptosis patient*

MRD1

MRD2

Vertical fissure height

Upper lid crease position

Levator function

Presence of lagophthalmos

### *Other things you gotta check*

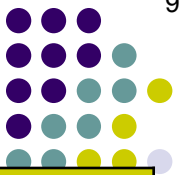
Pupils

Corneal sensitivity

Extraocular muscles

Refractive error

EOMs



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Coming in hot...

### *Lid-related observations in the ptosis patient*

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Upper lid crease position

Levator function

Presence of lagophthalmos

### *Other things you gotta check*

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Corneal sensitivity

Extraocular muscles

Refractive error

EOMs

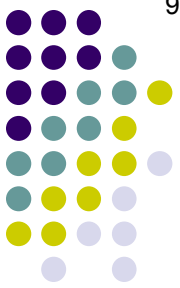
## Congenital Ptosis



General categories of ptosis etiology		
?		
?		
?		
?		
?		
?		

*Note: These categories are not unique to congenital ptosis—they apply to **acquired** ptosis as well*

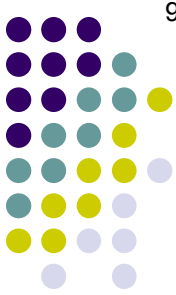
*Name the categories first...*



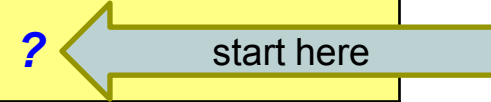
<b>General categories of ptosis etiology</b>		
<b>Myogenic</b>		
<b>Neurogenic</b>		
<b>Aponeurotic</b>		<i>Note: These categories are not unique to congenital ptosis—they apply to <b>acquired</b> ptosis as well</i>
<b>Mechanical</b>		
<b>Syndromic</b>		
<b>Traumatic</b>		

*Name the categories first...*

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	?
Neurogenic	
Aponeurotic	
Mechanical	
Syndromic	
Traumatic	



*Name the categories first...now, ID specific causes of each*

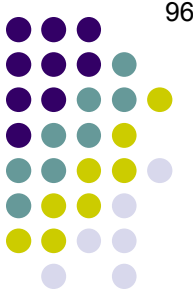
## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis
Neurogenic	
Aponeurotic	
Mechanical	
Syndromic	
Traumatic	

*Name the categories first...now, ID specific causes of each*

## Congenital Ptosis

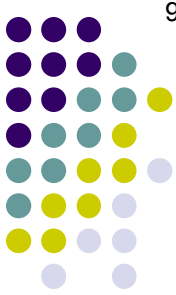


<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	? ? ?
<b>Aponeurotic</b>	
<b>Mechanical</b>	
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*



## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	
<b>Mechanical</b>	
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	?
<b>Mechanical</b>	
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

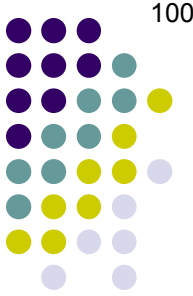
## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
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<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	
<b>Syndromic</b>	
<b>Traumatic</b>	<i>(So an argument could be made that it actually belongs here)</i>

*Name the categories first...now, ID specific causes of each*

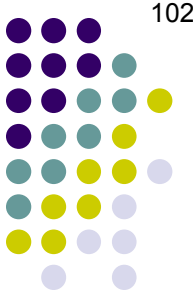
## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	? ?
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

## Congenital Ptosis

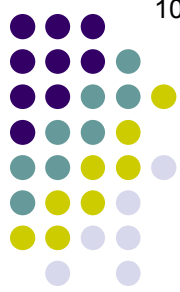


<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	Plexiform neurofibroma Capillary hemangioma
<b>Syndromic</b>	
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

## Q

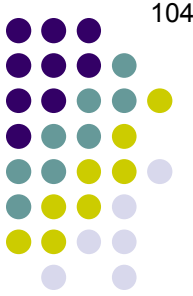
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<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	Plexiform neurofibroma Capillary hemangioma
<b>Syndromic</b>	?
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	Plexiform neurofibroma Capillary hemangioma
<b>Syndromic</b>	Blepharophimosis syndrome
<b>Traumatic</b>	

*Name the categories first...now, ID specific causes of each*



## Q

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>	
<b>Myogenic</b>	Congenital myogenic ptosis	?
<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink	?
<b>Aponeurotic</b>	Rare; associated with forceps injury	?
<b>Mechanical</b>	Plexiform neurofibroma Capillary hemangioma	?
<b>Syndromic</b>	Blepharophimosis syndrome	?
<b>Traumatic</b>		?

*Which is the most common cause of congenital ptosis?*

## A

# Congenital Ptosis



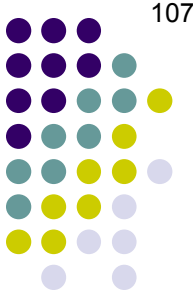
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<b>Syndromic</b>	Blepharophimosis syndrome
<b>Traumatic</b>	

!

*Which is the most common cause of congenital ptosis?*

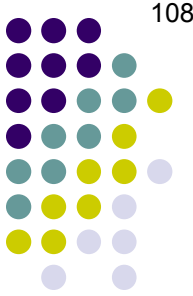
Congenital myogenic ptosis (aka *congenital fibrosis of the levator*), by a mile

## Congenital Ptosis



<i>General categories of ptosis etiology</i>	<i>Specific causes of congenital ptosis within each category</i>
<b>Myogenic</b>	Congenital myogenic ptosis
<i>In three words, what is the etiology of congenital myogenic ptosis?</i>	
<b>Traumatic</b>	

## Congenital Ptosis



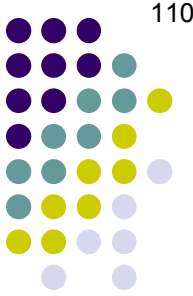
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<b>Myogenic</b>	Congenital myogenic ptosis
<p><i>In three words, what is the etiology of congenital myogenic ptosis?</i>  Levator muscle dysgenesis</p>	
<b>Traumatic</b>	

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis
<p><i>In three words, what is the etiology of congenital myogenic ptosis?</i>  Levator muscle dysgenesis</p> <p><i>What does that mean?</i></p>	
<b>Traumatic</b>	

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	<b>Congenital myogenic ptosis</b>
<p><i>In three words, what is the etiology of congenital myogenic ptosis?</i>  Levator muscle dysgenesis</p> <p><i>What does that mean?</i>  The levator fails to develop properly, with some or all of its muscle fibers replaced by fibrous and adipose tissue</p>	
<b>Traumatic</b>	

## Congenital Ptosis



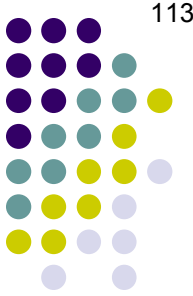
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<b>Traumatic</b>	



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	<b>Congenital myogenic ptosis</b>
<p><i>In three words, what is the etiology of congenital myogenic ptosis?</i>  Levator muscle dysgenesis</p> <p><i>What does that mean?</i>  The levator fails to develop properly, with some or all of its muscle fibers replaced by fibrous and adipose tissue</p> <p><i>How is it inherited?</i>  This is not addressed in either the <i>Peds</i> or <i>Plastics</i> book, but both mention that it can be familial (so be sure to inquire re family hx)</p>	
<b>Traumatic</b>	



## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*In three words, what is the etiology of congenital myogenic ptosis?*

*In congenital myogenic ptosis, what important finding manifests in downgaze?*

*This is not addressed in either the video or lecture book, but I will mention that it can be familial (so be sure to inquire re family hx)*

<b>Traumatic</b>	
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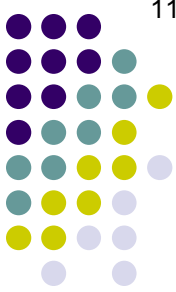
## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

<b>Traumatic</b>	
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Q

## Congenital Ptosis

<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*In three words, what is the etiology of congenital myogenic ptosis?*

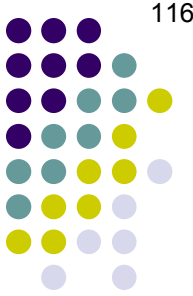
*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

*What is lid lag?*

*This is not addressed in either the video or lecture book, but I mention that it can be familial (so be sure to inquire re family hx)*

<b>Traumatic</b>	
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## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
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*In three words, what is the etiology of congenital myogenic ptosis?*

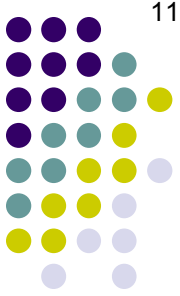
*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

*What is lid lag?*

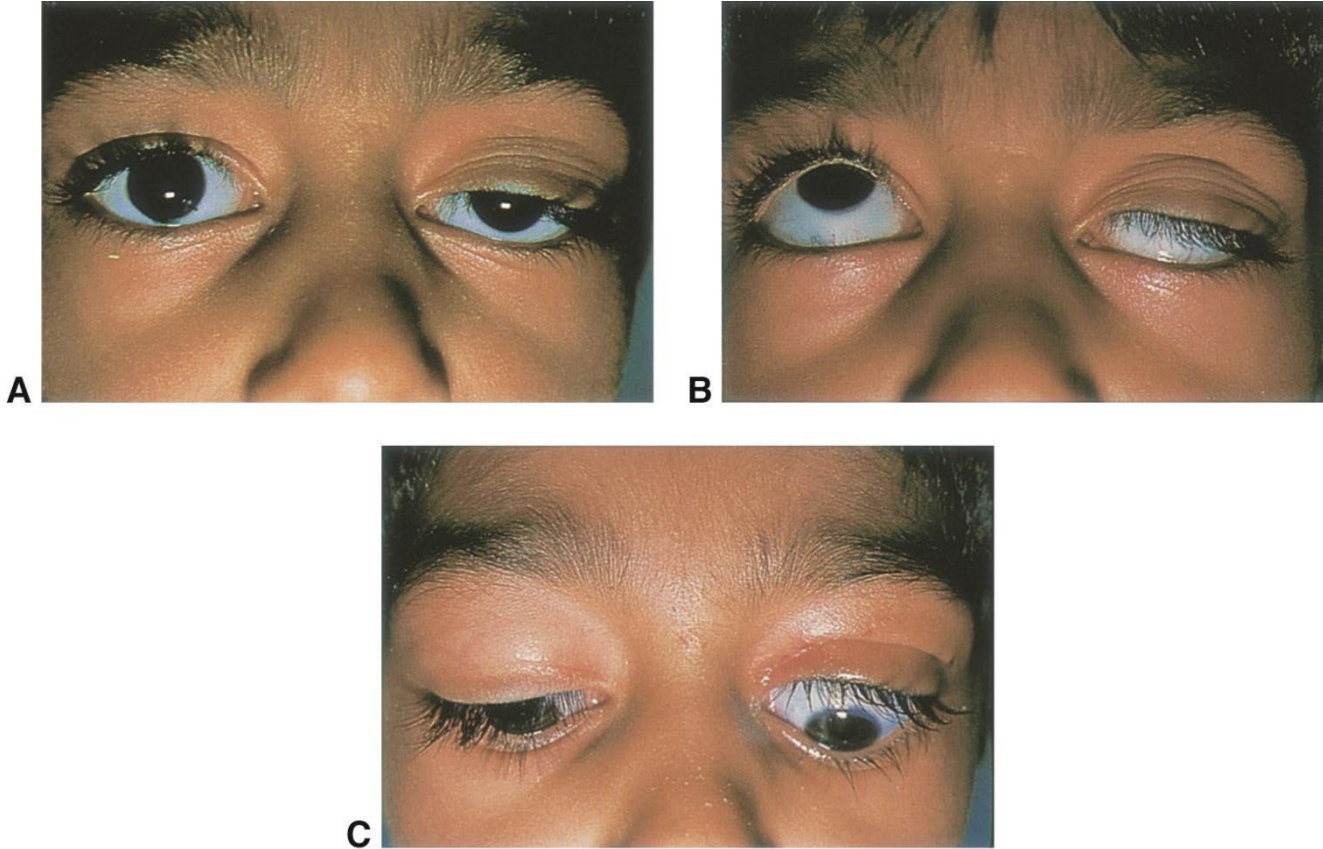
The phenomenon in which the upper lid does not 'follow' the globe in downgaze

*This is not addressed in either the text or lecture book, but I mention that it can be familial (so be sure to inquire re family hx)*

<b>Traumatic</b>	
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## Congenital Ptosis



Congenital myogenic ptosis: Lid lag

# Congenital Ptosis

**In three words, what is the etiology of congenital myogenic ataxia?**

*What causes lid lag in congenital myogenic ptosis?*

## Traumatic

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

*What is lid lag?*

The phenomenon in which the upper lid does not 'follow' the globe in downgaze

*What causes lid lag in congenital myogenic ptosis?*

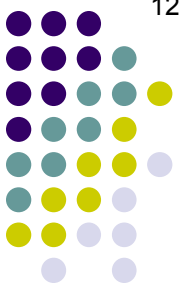
Some or all of the levator muscle has been replaced by fibrofatty tissue. This tissue can neither contract (causing ptosis) *nor* relax (causing lid lag).

mention that it can be familial (so be sure to inquire re family hx)

<b>Traumatic</b>	
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## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

*In three words, what is the etiology of congenital myogenic ptosis?*

*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

*What is lid lag?*

The phenomenon in which the upper lid does not 'follow' the globe in downgaze

*What causes lid lag in congenital myogenic ptosis?*

Some or all of the levator muscle has been replaced by fibrofatty tissue. This tissue can neither contract (causing ptosis) **nor relax (causing lid lag).**

ment

*In severe cases, ie, those in which fibrofatty tissue constitute nearly all of the substance of the levator, this inability to relax can lead to what related finding?*



## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*In three words, what is the etiology of congenital myogenic ptosis?*

*In congenital myogenic ptosis, what important finding manifests in downgaze?*  
Lid lag

*What is lid lag?*

The phenomenon in which the upper lid does not 'follow' the globe in downgaze

*What causes lid lag in congenital myogenic ptosis?*

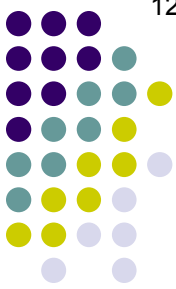
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ment

*In severe cases, ie, those in which fibrofatty tissue constitute nearly all of the substance of the levator, this inability to relax can lead to what related finding?*  
**Lagophthalmos**

## A

# Congenital Ptosis



<i>General categories of ptosis etiology</i>	<i>Specific causes of congenital ptosis within each category</i>
<b>Myogenic</b>	Congenital myogenic ptosis

*In three words, what is the etiology of congenital myogenic ptosis?*

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*What is lid lag?*

The phenomenon in which the upper lid does not 'follow' the globe in downgaze

*What causes lid lag in congenital myogenic ptosis?*

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ment

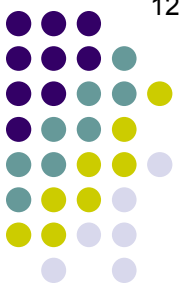
*In severe cases, ie, those in which fibrofatty tissue constitute nearly all of the substance of the levator, this inability to relax can lead to what related finding?*  
**Lagophthalmos**

*What is lagophthalmos?*

Failure of the lids to close completely

*Note that we have at last 'gotten to this shortly'*

*Hold up--why wouldn't a ptotic lid close completely?*  
We'll get to that shortly



Q

## Congenital Ptosis

<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*With regard to correction of congenital myogenic ptosis: At around what age should surgery be performed?*

**Traumatic**

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*With regard to correction of congenital myogenic ptosis: At around what age should surgery be performed?*  
3-4 years

<b>Traumatic</b>	
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Q

## Congenital Ptosis

<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

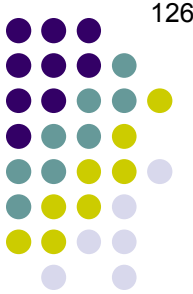
*With regard to correction of congenital myogenic ptosis: At around what age should surgery be performed?*

3-4 years

*That said, there is an indication for surgery in infancy. What is it?*

**Traumatic**

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*With regard to correction of congenital myogenic ptosis: At around what age should surgery be performed?*

3-4 years

*That said, there is an indication for surgery in infancy. What is it?*

Ptosis severe enough to be amblyogenic (ie, it occludes the visual axis)

<b>Traumatic</b>	
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## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
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3-4 years

*That said, there is an indication for surgery in infancy. What is it?*

Ptosis severe enough to be amblyogenic (ie, it occludes the visual axis)

*Likewise, there is an indication for intervening in toddlerhood—what is it?*

<b>Traumatic</b>	
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## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*With regard to correction of congenital myogenic ptosis: At around what age should surgery be performed?*

3-4 years

*That said, there is an indication for surgery in infancy. What is it?*

Ptosis severe enough to be amblyogenic (ie, it occludes the visual axis)

*Likewise, there is an indication for intervening in toddlerhood—what is it?*

The adoption by the child of a significant chin-up position (it may interfere with motor development)

<b>Traumatic</b>	
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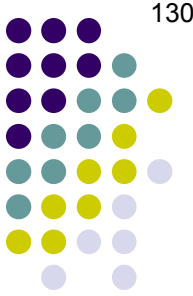


## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis
<p><i>What surgery is performed to correct congenital myogenic ptosis?</i></p>	
<b>Traumatic</b>	

## Congenital Ptosis



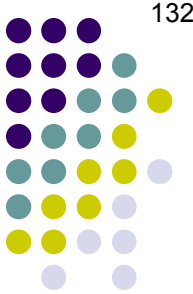
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<b>Traumatic</b>	

## Congenital Ptosis



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<b>Traumatic</b>	

## Congenital Ptosis



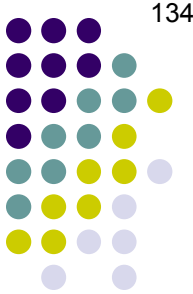
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<b>Traumatic</b>	

## Congenital Ptosis

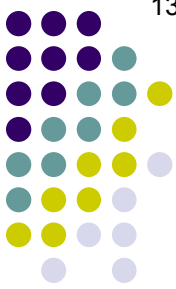


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<b>Traumatic</b>	

# Congenital Ptosis



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<b>Traumatic</b>	

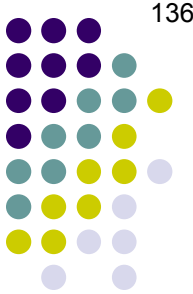


Q

## Congenital Ptosis

<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
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<b>Traumatic</b>	

# Congenital Ptosis

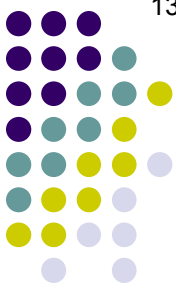


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<b>Traumatic</b>	





## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

*What surgery is performed to correct congenital myogenic ptosis?*

The procedure depends upon the amount of levator function present

*What determines the amount of levator function?*

It is proportional to the amount of normal muscle tissue present

*What procedure is employed in cases of:*

--Mild to moderate levator dysfunction? Levator resection

--Severe dysfunction? **Frontalis sling**

*What is the underlying premise of the frontalis sling procedure?*

## A

# Congenital Ptosis

<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

*What surgery is performed to correct congenital myogenic ptosis?*

The procedure depends upon the amount of levator function present

*What determines the amount of levator function?*

It is proportional to the amount of normal muscle tissue present

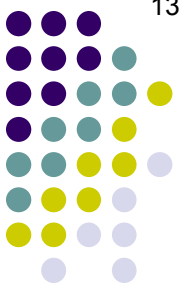
*What procedure is employed in cases of:*

--Mild to moderate levator dysfunction? Levator resection

--Severe dysfunction? **Frontalis sling**

*What is the underlying premise of the frontalis sling procedure?*

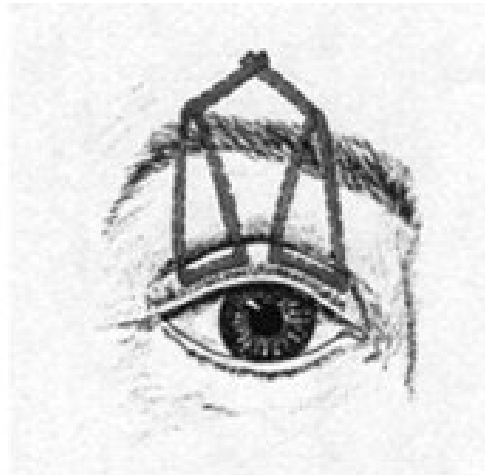
When levator contraction is inadequate to clear the visual axis, people naturally engage the frontalis muscle to assist. The *frontalis sling procedure* directly connects the frontalis muscle to the lid margin, greatly increasing the effectiveness of frontalis contraction for elevating the lid.



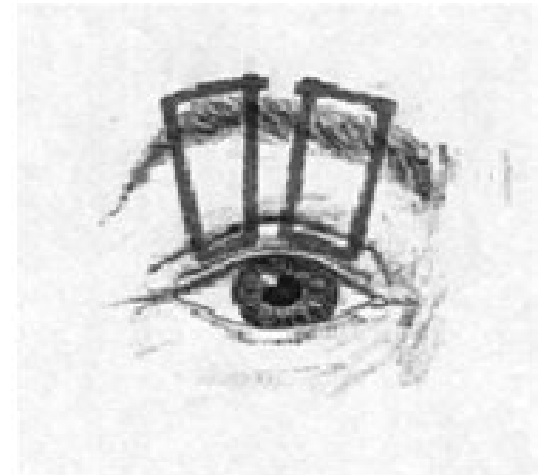
## Congenital Ptosis



**Collin & Kemp technique**



**Crawford technique**



**Double rhomboid technique**

Frontalis sling\*

*\*IMO you don't need to remember the specific procedures for the OKAP*



Q

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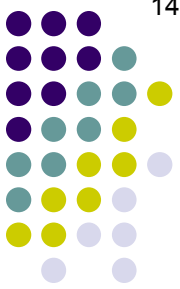
--Mild to moderate levator dysfunction? Levator resection

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*What materials are typically used to create the sling?*

...naturally engage the  
...the frontalis muscle to  
...or elevating the lid.

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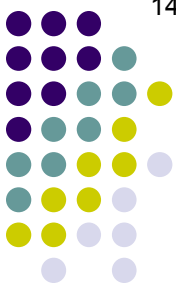
Silicone tubing, or tensor fascia lata (either autologous\* or banked)

...naturally engage the  
the frontalis muscle to  
or elevating the lid.

\*The *Plastics* book uses the term **autogenous** fascia lata (*autologous* is more correct)

## Q

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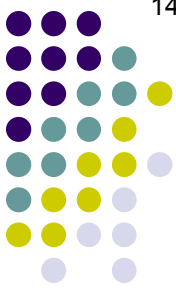
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*Which gives the best long-term results?*

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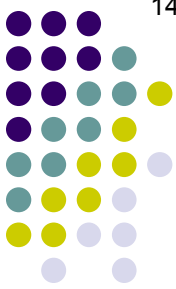
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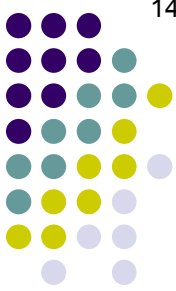
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*What's the downside to using autologous fascia lata?*

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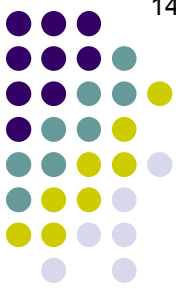
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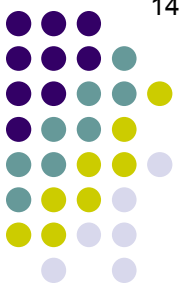
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*In severe unilateral congenital ptosis secondary to myogenic dysgenesis, should you perform unilateral, or bilateral slings?*

Tough call. A unilateral sling spares the normally functioning lid, but leaves the patient with a markedly asymmetric appearance; bilateral slings yield a more symmetric appearance, but involves the destruction of normal tissue.

*What materials are typically used to create the*  
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*Which gives the*

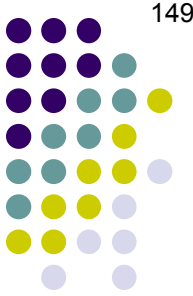
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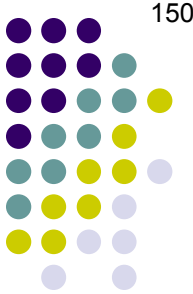
## Congenital Ptosis



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<b>Traumatic</b>	

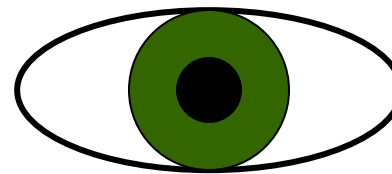
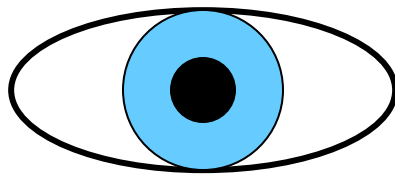
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# Congenital Ptosis



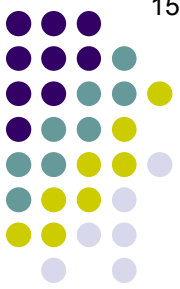
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*What ocular sign is present in congenital Horner's that is not found in acquired Horner's?*  
Heterochromia iridis



## Q

# Congenital Ptosis

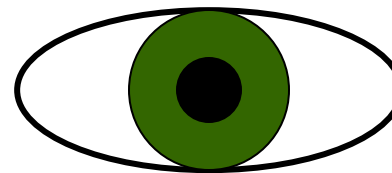
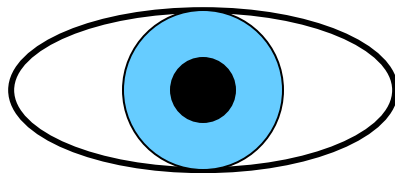


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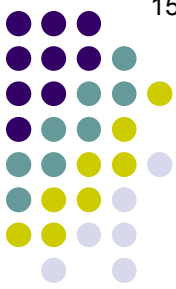
Heterochromia iridis

*Which iris is lighter—the one on the ptotic side, or the other?*



## A

# Congenital Ptosis



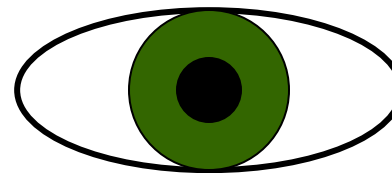
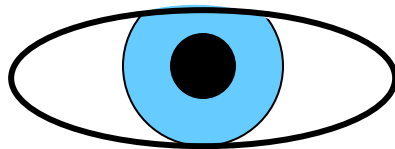
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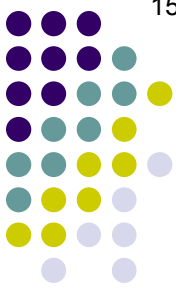
The ptotic side





## Q

# Congenital Ptosis



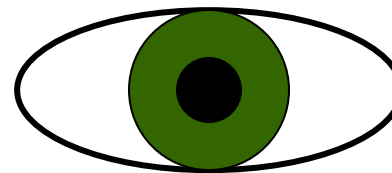
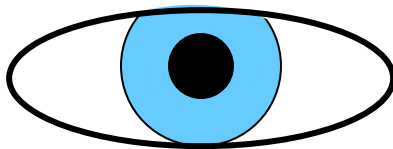
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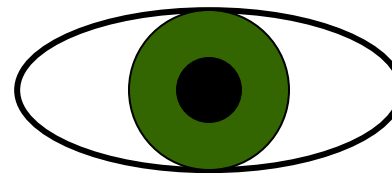
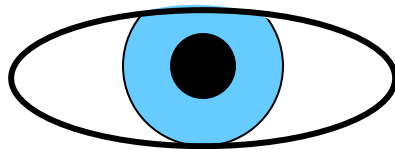
The ptotic side

<b>Syndromic</b>	Blepharophimosis syndrome
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<p>What ocular sign is present in congenital Horner's that is not found in acquired Horner's?</p> <p>What nonocular signs are present that aren't found in acquired Horner's?</p> <p>--The hair on the ipsilateral side of the head is <input type="text"/></p> <p>--</p>	
The ptotic side	
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## A

# Congenital Ptosis



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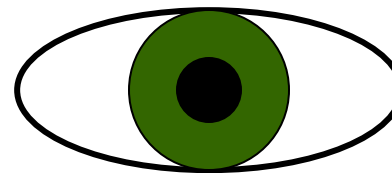
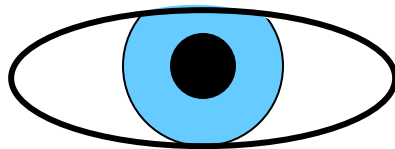
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*What nonocular signs are present that aren't found in acquired Horner's?*

--The hair on the ipsilateral side of the head is lighter

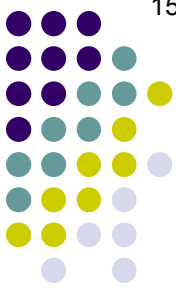
--

The ptotic side



## Q

# Congenital Ptosis



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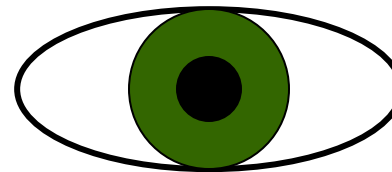
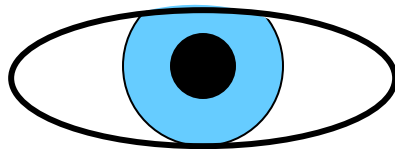
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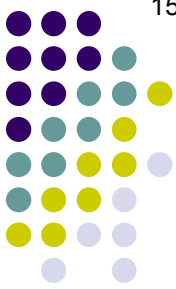
What nonocular signs are present that aren't found in acquired Horner's?

--The hair on the ipsilateral side of the head is lighter

--The nipple on the ipsilateral side of the body is

The ptotic side





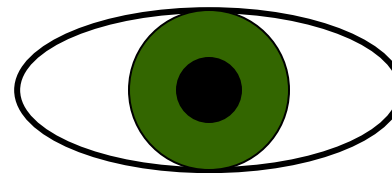
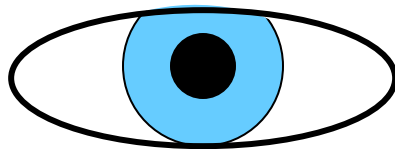
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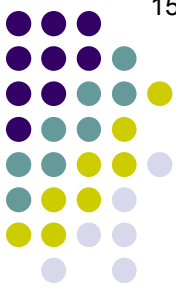
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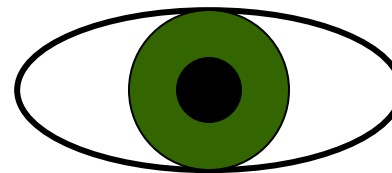
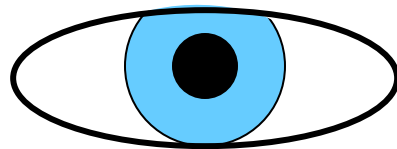
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Another hair-related finding:

Curly hair on the ipsilateral side of the head is more curly



## A

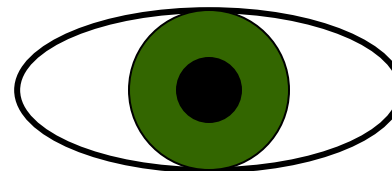
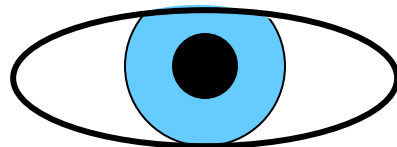
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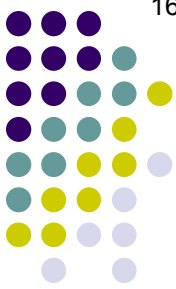
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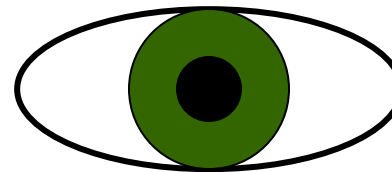
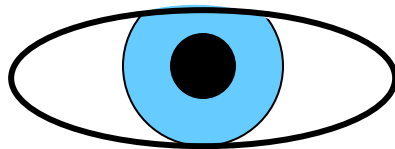
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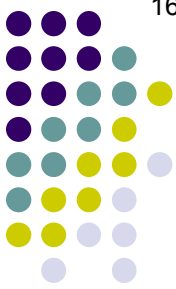
*What diagnosis must be considered as a cause of congenital Horner's?*

*Which iris is lighter—the one on the ptotic side, or the other?*

The ptotic side







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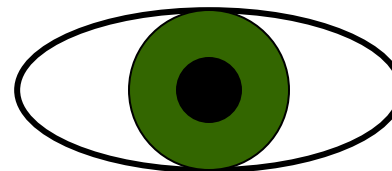
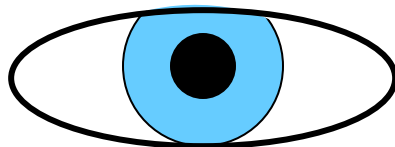
malignancy

of the

two words

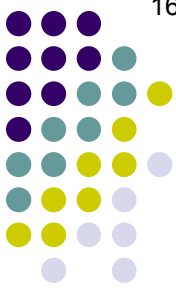
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The ptotic side



## A

# Congenital Ptosis



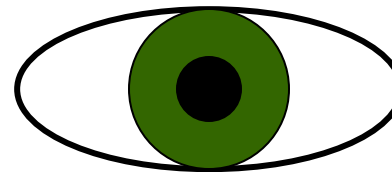
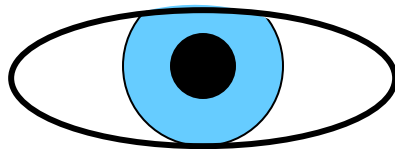
General categories of ptosis etiology	Specific causes of congenital ptosis within each category
Myogenic	Congenital myogenic ptosis
Neurogenic	CN3 palsy Horner's Marcus Gunn jaw wink
Syndromic	Blepharophimosis syndrome
Traumatic	

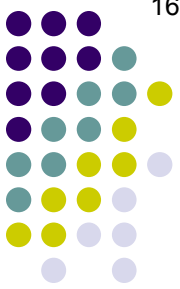
*What ocular sign is present in congenital Horner's that is not found in acquired Horner's?*

*What diagnosis must be considered as a cause of congenital Horner's?*  
Neuroblastoma of the sympathetic chain

*Which iris is lighter—the one on the ptotic side, or the other?*

The ptotic side





*Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?*

### ***Specific causes of congenital ptosis within each category***

Congenital myogenic ptosis

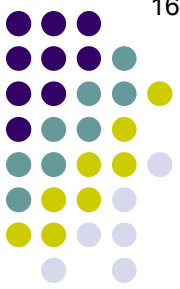
CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

trauma; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

Pharyngophimosis syndrome



*Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?*

*It is one of synkinesis*

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Congenital myogenic ptosis

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Horner's

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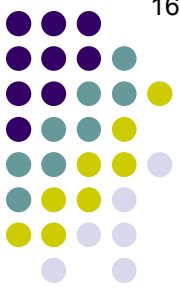
trauma; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

Pharyngophimosis syndrome

# Q

## Congenital Ptosis



*Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?*

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*What does synkinesis refer to?*

### ***Specific causes of congenital ptosis within each category***

Congenital myogenic ptosis

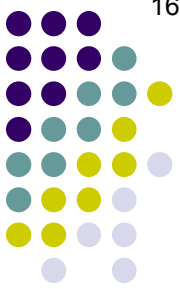
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trauma; associated with forceps injury

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Capillary hemangioma

Pharyngophimosis syndrome



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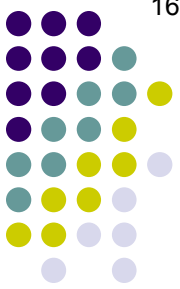
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Horner's

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trauma; associated with forceps injury

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Capillary hemangioma

Pharyngophimosis syndrome



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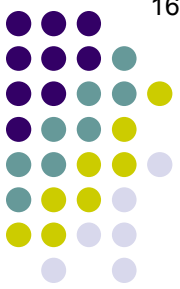
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Horner's

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Capillary hemangioma

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CN3 palsy  
Horner's

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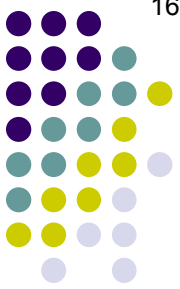
Plexiform neurofibroma  
Capillary hemangioma

Pharyngophimosis syndrome



# Q

## Congenital Ptosis



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Unilateral

*What is the clinical hallmark of MGJW?*

### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

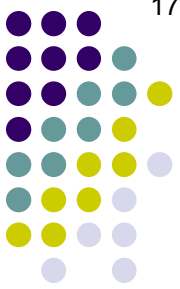
CN3 palsy  
Horner's

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trauma; associated with forceps injury

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Capillary hemangioma

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Unilateral

*What is the clinical hallmark of MGJW?*

The ptotic lid elevates in response to voluntary masticatory movements of the jaw

## Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

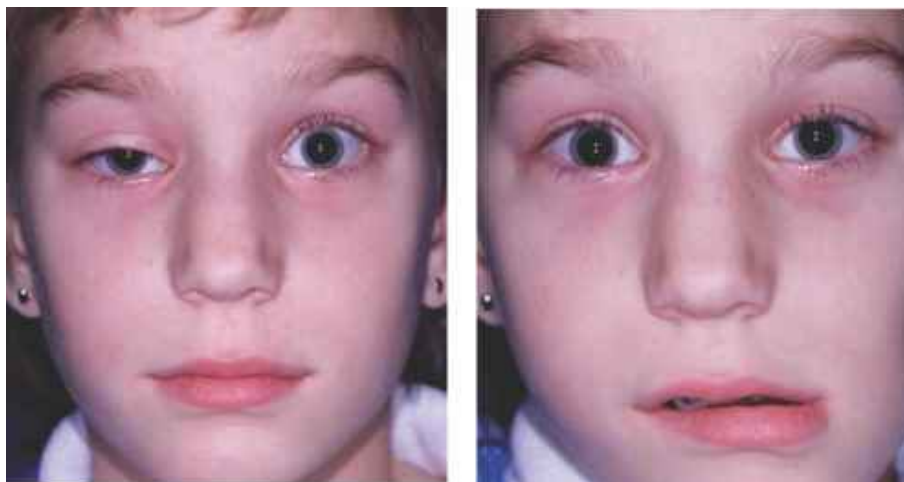
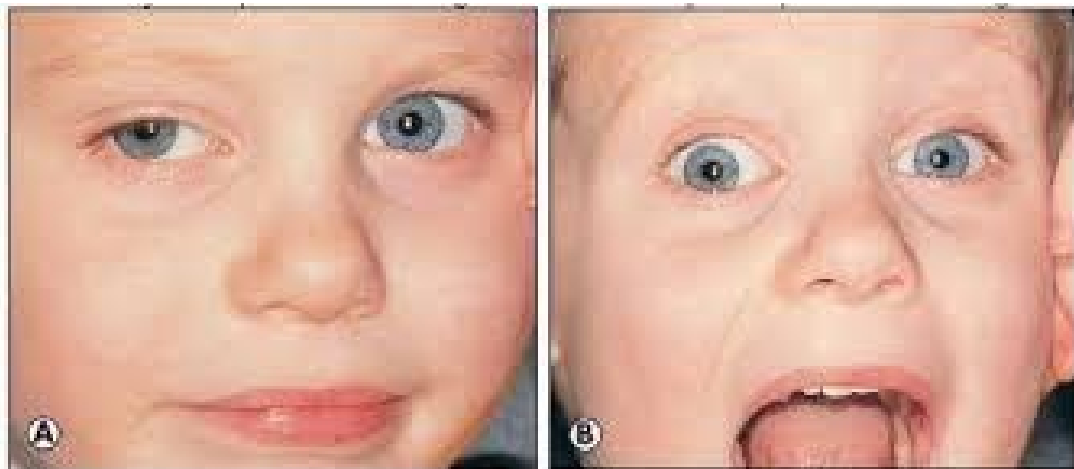
**Marcus Gunn jaw wink**

trauma; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

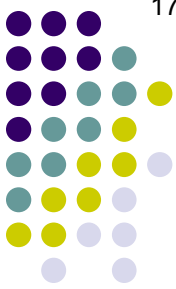
Pharyngeal webbing syndrome

## Congenital Ptosis



MGJW





Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

It is one of synkinesis

What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral, or bilateral?

Unilateral

What is the classic story regarding when parents first note their infant has MGJW?

The ptotic lid elevates in response to voluntary masticatory movements of the jaw

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

trauma; associated with forceps injury

lepharophimosis syndrome



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

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The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral, or bilateral?

Unilateral

What is the classic story regarding when parents first note their infant has MGJW?

It is while the infant is nursing (Mom may say the infant's lid 'twitches' while nursing)

The ptotic lid elevates in response to voluntary

**masticatory movements of the jaw**

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

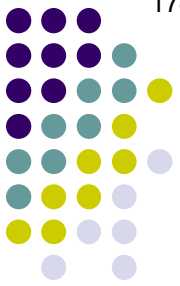
CN3 palsy

Horner's

**Marcus Gunn jaw wink**

; associated with forceps injury

lepharophimosis syndrome



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What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral, or bilateral?

Unilateral

What is the clinical hallmark of MGJW?

The ptotic lid <sup>drops further</sup> elevates in response to voluntary masticatory movements of the jaw

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

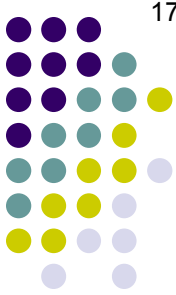
**Marcus Gunn jaw wink**

trauma; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

Leptodermis syndrome

Can MGJW present such that the ptosis **worsens** with jaw movements?



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

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What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral, or bilateral?

Unilateral

What is the clinical hallmark of MGJW?

The ptotic lid <sup>drops further</sup> elevates in response to voluntary masticatory movements of the jaw

Can MGJW present such that the ptosis worsens with jaw movements?

Yes, but this is distinctly uncommon

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

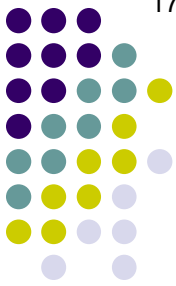
CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

Leishman's; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

Leishman's syndrome



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Is the ptosis of MGJW unilateral?

Unilateral

What is the clinical hallmark?

The ptotic lid elevates in response to

**masticatory movements**

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

Neurofibroma

hemangioma

Winking ptosis syndrome

What are the muscles of mastication?

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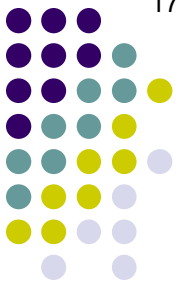
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--Temporalis

Which cranial nerve innervates them?

The trigeminal (V)





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Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

Neurofibroma  
hemangioma

Winking ptosis syndrome

*What are the muscles of mastication?*

--Medial (or internal) pterygoid

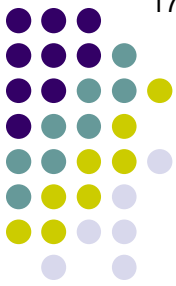
--Lateral (or external) pterygoid

--Masseter

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The trigeminal (V)



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Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

Neurofibroma  
hemangioma

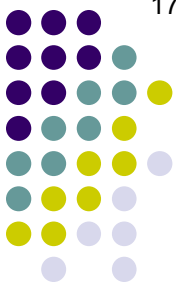
Winking ptosis syndrome

What are the muscles of mastication?

- Medial (or internal) pterygoid
- Lateral (or external) pterygoid
- Masseter
- Temporalis

Which cranial nerve innervates them?

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Congenital myogenic ptosis

CN3 palsy

Horner's

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Associated with forceps injury

Neurofibroma  
hemangioma

Winking ptosis syndrome

What are the muscles of mastication?

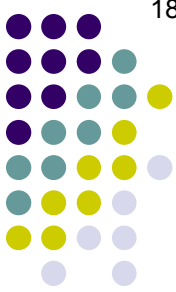
- Medial (or internal) pterygoid
- Lateral (or external) pterygoid
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- Temporalis

Which cranial nerve innervates them?

The trigeminal (V)

# Q

## Congenital Ptosis



*Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?*

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*What does synkinesis refer to?*

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

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Unilateral

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The ptotic lid elevates in response to

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### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

Neurofibroma  
hemangioma

Winking ptosis syndrome

*What are the muscles of mastication?*

--Medial (or internal) pterygoid

--Lateral (or external) pterygoid

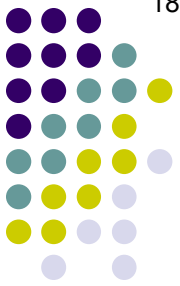
--Masseter

--Temporalis

*Which cranial nerve innervates them?*

**The trigeminal (V)**

*Which branch of the trigeminal?*



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**The trigeminal (V)**

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Congenital myogenic ptosis

CN3 palsy

Horner's

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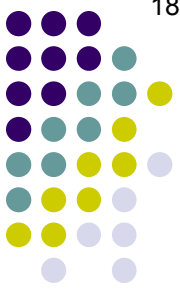
Neurofibroma  
hemangioma

Winking ptosis syndrome

*Which branch of the trigeminal? The mandibular (V<sub>3</sub>)*

# Q

## Congenital Ptosis



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Unilateral

*What is the clinical hallmark of MGJW?*

The ptotic lid elevates in response to voluntary masticatory movements of the jaw

*Which jaw movements are involved?*

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--  
--

### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

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Plexiform neurofibroma  
Capillary hemangioma

Leptophthalmos syndrome

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Unilateral

*What is the clinical hallmark of MGJW?*

The ptotic lid elevates in response to voluntary masticatory movements of the jaw

*Which jaw movements are involved?*

- Lateral displacement
- Protrusion
- Wide opening
- Clenching

### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

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Unilateral

*What is the clinical hallmark of MGJW?*

The ptotic lid elevates in response to voluntary masticatory movements of the jaw

*Which jaw movements are involved?*

--**Lateral displacement** (contralateral to ptosis? ipsilateral to ptosis?)

--Protrusion

--Wide opening

--Clenching

### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Leptodactyly; associated with forceps injury

Plexiform neurofibroma

Capillary hemangioma

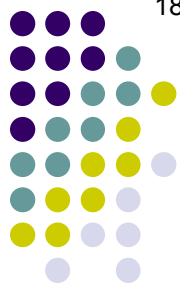
Pharyngophimosis syndrome

*If lateral displacement is the movement that resolves the ptosis, is the direction of the displacement contralateral to the ptosis, or ipsilateral?*



# A

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*Which jaw movements are involved?*

--**Lateral displacement** (contralateral to ptosis)

--Protrusion

--Wide opening

--Clenching

*If lateral displacement is the movement that resolves the ptosis, is the direction of the displacement contralateral to the ptosis, or ipsilateral?*

**Contralateral**

### **Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

Leptodactyly; associated with forceps injury

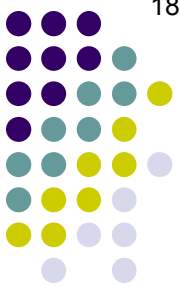
Plexiform neurofibroma

Capillary hemangioma

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*Which jaw movements are involved?*

--**Lateral displacement** (contralateral to ptosis)

--**Protrusion**

--**Wide opening**

--**Clenching**

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

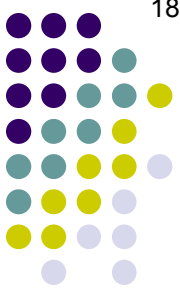
**Marcus Gunn jaw wink**

Retrolental fibroplasia; associated with forceps injury

Plexiform neurofibroma  
Capillary hemangioma

Pharyngeal webbing; blepharophimosis syndrome

*What do these movements have in common?*



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The ptotic lid elevates in response to voluntary masticatory movements of the jaw

*Which jaw movements are involved?*

--**Lateral displacement** (contralateral to ptosis)

--**Protrusion**

--**Wide opening**

--**Clenching**

**Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy

Horner's

**Marcus Gunn jaw wink**

; associated with forceps injury

Plexiform neurofibroma

Capillary hemangioma

lepharophimosis syndrome

*What do these movements have in common?*

All are performed by the **levator palpebrae superioris** muscle

# A

## Congenital Ptosis



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

It is one of synkinesis

What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral?

Unilateral

What is the clinical hallmark?

The ptotic lid elevates in response to masticatory movements of the jaw

Which jaw movements are involved?

- Lateral displacement** (contralateral to ptosis)
- Protrusion**
- Wide opening**
- Clenching

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

Neurofibroma  
hemangioma

Winking ptosis syndrome

What are the muscles of mastication?

- Medial (or internal) pterygoid
- Lateral (or external) pterygoid**
- Masseter
- Temporalis

Which cranial nerve innervates them?

The trigeminal (V)

What do these movements have in common?

All are performed by the lateral pterygoid muscle

# Q

## Congenital Ptosis



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

It is one of synkinesis

What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral?

Unilateral

What is the clinical hallmark?

The ptotic lid closes in response to masticatory movement

Which jaw movements are involved?

- Lateral displacement** (contralateral to ptosis)
- Protrusion**
- Wide opening**
- Clenching**

**Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

Associated with forceps injury

What are the muscles of mastication?

--Medial (or internal) pterygoid

--**Lateral (or external) pterygoid**

--Masseter

Neurofibroma  
hemangioma

What does this imply about the pathophysiology of MGJW?

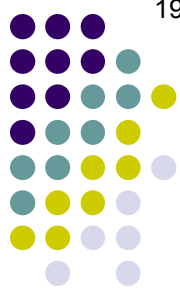
The trigeminal (V)

What do these movements have in common?

**All are performed by the lateral pterygoid muscle**

# A

## Congenital Ptosis



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

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What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the **voluntary** movement of another

Is the ptosis of MGJW unilateral?

Unilateral

What is the clinical hallmark?

The ptotic lid closes in response to masticatory movement

Which jaw movements are involved?

- Lateral displacement** (contralateral to ptosis)
- Protrusion**
- Wide opening**
- Clenching**

### Specific causes of congenital ptosis within each category

Congenital myogenic ptosis

CN3 palsy  
Horner's

**Marcus Gunn jaw wink**

Not associated with forceps injury

What are the muscles of mastication?

--Medial (or internal) pterygoid

--**Lateral (or external) pterygoid**

--Masseter

Neurofibroma  
hemangioma

What does this imply about the pathophysiology of MGJW?

That it usually involves an abnormal connection between the levator palpebrae muscle of the ptotic eye and the contralateral lateral pterygoid muscle

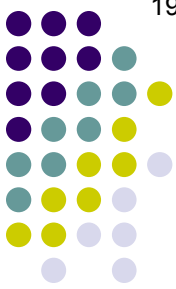
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What do these movements have in common?

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Q

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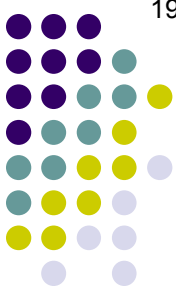
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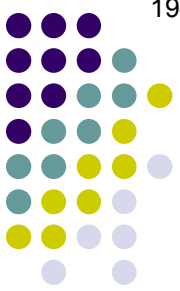
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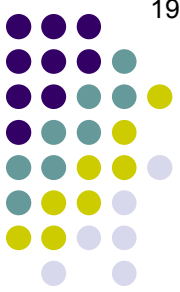
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**Is MGJW sporadic, or familial?**

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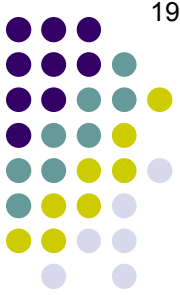
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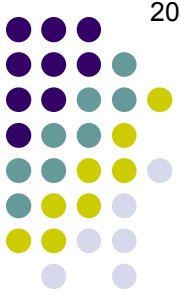
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# Q/A

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### Möbius syndrome

What is the clinical hallmark?

The ptotic lid. What does that imply? That it uses the levator palpebrae superioris muscle or the orbicularis oculi muscle?

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Are vertical eye movements affected as well?

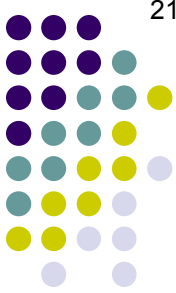
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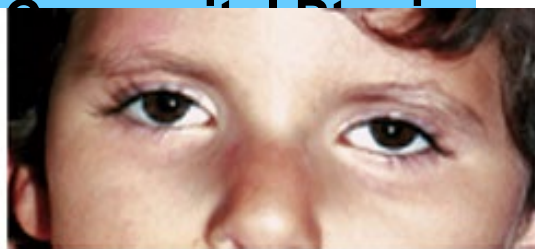
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**A****B****C****D**

Mobius syndrome. **A**, orthotropia in primary. **B**, inability to smile. **C**, bilaterally absent adduction and severely limited abduction. **D**, Vertical movements are not affected.

Q

# Congenital Ptosis



Broadly speaking, what sort of disorder is Marcus Gunn jaw wink (MGJW)?

It is one of synkinesis

What does synkinesis refer to?

The **involuntary** movement of one bodypart in response to the voluntary movement of another

In Marcus Gunn jaw-winking syndrome, CN5 (dys)innervates the levator.

Thus, MGJW is In a nutshell, what findings are typical in Möbius syndrome?

Another congenital Bilateral facial weakness What tops the DDx for a Möbius-like presentation in a newborn?

Is the Möbius syndrome? ptosis. What is Möbius syndrome

What is the clinical hallmark?

The ptotic lid What does it use? That it uses the lateral pterygoid muscle of the jaw

Which jaw movements?

- Lateral displacement
- Protrusion
- Wide opening
- Clenching

What does **this** imply about the pathophysiology of MGJW? That it doesn't **always** involve the lateral pterygoid muscle

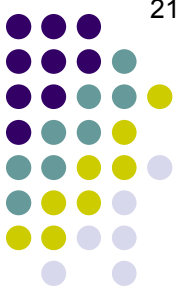
**Specific causes of congenital ptosis within each category**

Congenital myogenic ptosis

CN3 palsy  
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Congenital myasthenia

### Möbius syndrome

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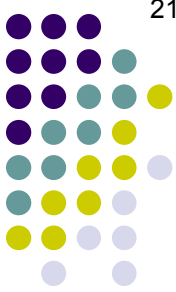
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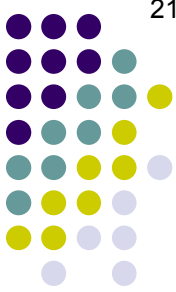
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How on earth can an infant be born with myasthenia?

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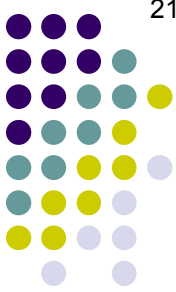
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Is the MGJW Unilateral?

What is the ptotic lid?

The ptotic lid is masticatory

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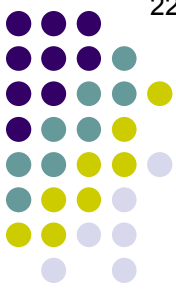
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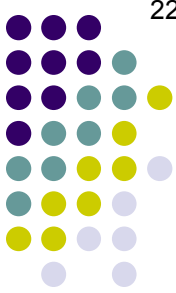
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<b>Myogenic</b>	Congenital myogenic ptosis
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*What two specific cell types are implicated in plexiform neurofibroma formation?*



## A

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## Congenital Ptosis

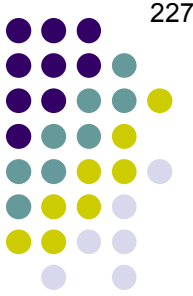


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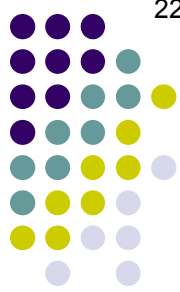
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*Are plexiform neurofibromas associated with a systemic condition?*



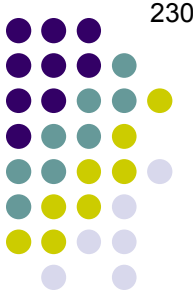
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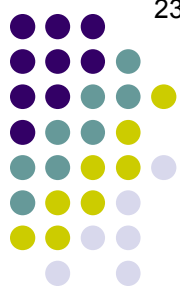
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**NF1**

*In a word, what sort of condition is NF1?*

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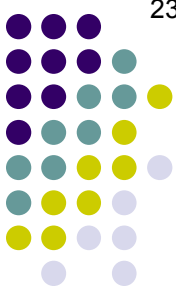
**NF1**

*In a word, what sort of condition is NF1?*  
A phakomatosis





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*What proportion of NF1 pts develop plexiform neurofibromas?*

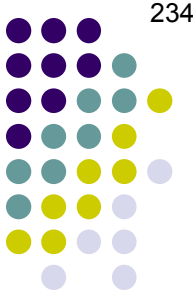
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About 1/3

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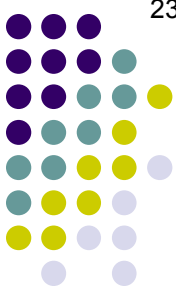
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## Q

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What proportion of plexiform neurofibroma pts have NF1?

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In a word, what sort of condition is NF1?  
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Pretty much all of them

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About 1/3

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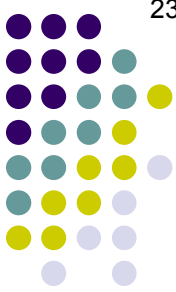
tl;dr Not all NF1 pts get plexiform neurofibromas, but everyone with plexiform neurofibromas has NF1

Yes—they are strongly associated with **NF1**

*In a word, what sort of condition is NF1?*  
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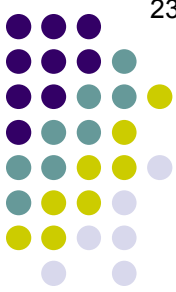
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*tl;dr Not all NF1 pts get plexiform n with plexiform neurofibromas has N*  
*Their predilection for the temporal aspect of the upper lid produces a specific configuration of the involved lid. What is it?*

Yes—they are strongly associated with (NF1)

A phakomatosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
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<b>Neurogenic</b>	CN3 palsy Horner's Marcus Gunn jaw wink
<b>Aponeurotic</b>	Rare; associated with forceps injury
<b>Mechanical</b>	<b>Plexiform neurofibroma</b> Capillary hemangioma

What proportion of NF1 pts develop plexiform neurofibromas? About 1/3

What proportion of plexiform neurofibroma pts have NF1? Pretty much all of them

tl;dr Not all NF1 pts get plexiform neurofibromas  
with plexiform neurofibromas has NF1

Their predilection for the temporal aspect of the upper lid produces a specific configuration of the involved lid. What is it?  
The tumor gives rise to an 'S-shaped lid'

Yes—they are strongly associated with NF1

A phakomatosis



## Congenital Ptosis

S-shaped lid deformity

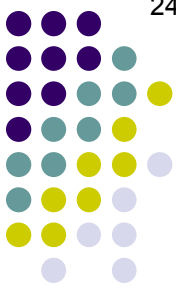


Plexiform neurofibroma: S-shaped lid





## Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
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What proportion of NF1 pts develop plexiform neurofibromas? About 1/3

In addition to producing ptosis, plexiform neurofibromas of the upper lid are a strong risk factor for what potentially blinding ocular condition?

tl;dr Not all NF1 pts get plexiform neurofibromas. Only those with plexiform neurofibromas have NF1.

Their predilection for the temporal aspect of the upper lid produces a specific configuration of the involved lid. What is it?

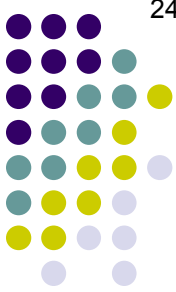
The tumor gives rise to an 'S-shaped lid'

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A phakomatosis

## A

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
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What proportion of NF1 pts develop plexiform neurofibromas? About 1/3

In addition to producing ptosis, plexiform neurofibromas of the upper lid are a strong risk factor for what potentially blinding ocular condition?  
Glaucoma

tl;dr Not all NF1 pts get plexiform neurofibromas  
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## Q

# Congenital Ptosis



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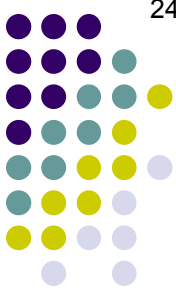
In addition to producing ptosis, plexiform neurofibromas of the upper lid are a **strong risk factor for Glaucoma**

How does a plexiform neurofibroma cause glaucoma?

ptosis

## A

# Congenital Ptosis

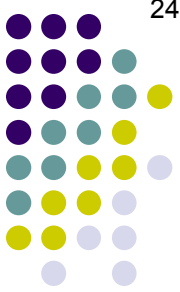


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In addition to producing ptosis, plexiform neurofibromas of the upper lid are a **strong risk factor for Glaucoma**

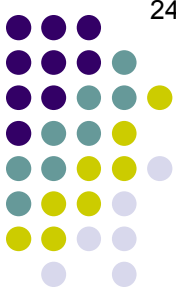
How does a plexiform neurofibroma cause glaucoma? It doesn't (so far as we know); rather, there is simply a strong association between them and the development of ipsilateral glaucoma



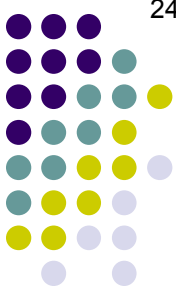
General categories of	Specific causes of congenital
<i>Among the orbital vascular lesions, where does the capillary hemangioma rank in terms of prevalence?</i>	
<b>Mechanical</b>	Plexiform neurofibroma <b>Capillary hemangioma</b>
<b>Syndromic</b>	Blepharophimosis syndrome
<b>Traumatic</b>	



General categories of	Specific causes of congenital
<p><i>Among the orbital vascular lesions, where does the capillary hemangioma rank in terms of prevalence?</i></p> <p>It is the <span>most v least</span> common</p>	
<b>Mechanical</b>	<p>Plexiform neurofibroma</p> <p><b>Capillary hemangioma</b></p>
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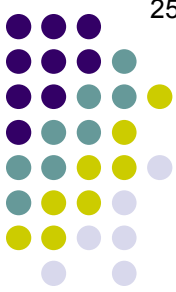


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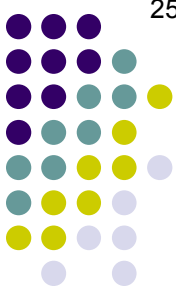




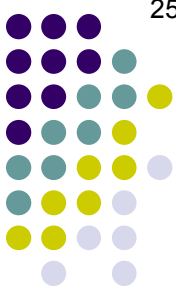
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<b>Mechanical</b>	Plexiform neurofibroma <b>Capillary hemangioma</b>
Syndromic	Blepharophimosis syndrome
Traumatic	



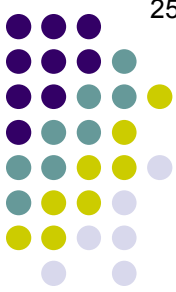
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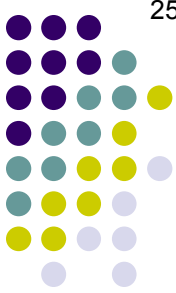
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<p><i>How does capillary hemangioma present?</i></p>	
<b>Idiopathic</b>	



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<p><b>Syndromic</b></p> <p><i>How does capillary hemangioma present?</i> As a <span>color-ish</span> or <span>color-like</span> lesion of the periorbital skin</p>	<p><b>Plenophthalmic syndrome</b></p>



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## Congenital Ptosis



Jordan M. Graff, MD  
U of Iowa, 2006

Capillary hemangioma





# Q

## Congenital Ptosis

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<p>How does capillary hemangioma present? As a <b>bluish</b> or <b>strawberry-like</b> lesion of the periorbital skin</p>	

What determines whether it appears **bluish** vs **strawberry-like**?

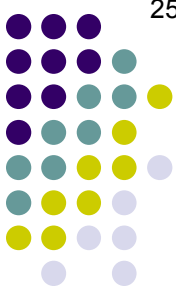


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What determines whether it appears **bluish** vs **strawberry-like**?

It appears **bluish** if it's...[one depth]

It appears **strawberry-like** if it's ...[the other depth]



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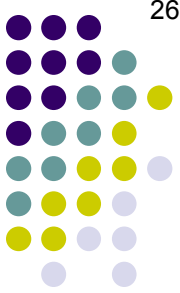


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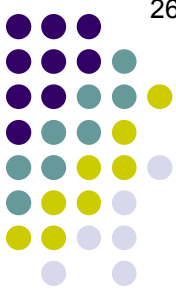


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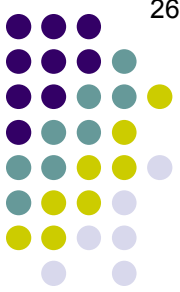
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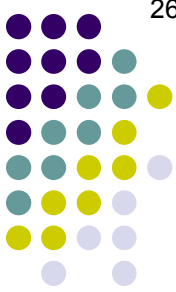


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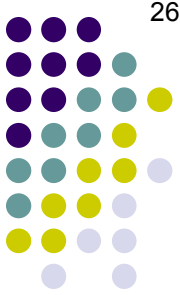


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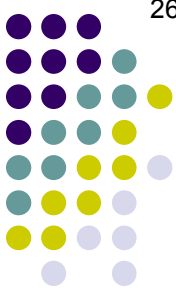


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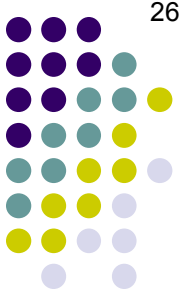


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# Congenital Ptosis

## General categories of

## Specific causes of congenital

*Among the orbital vascular lesions, where does the capillary hemangioma rank in terms of prevalence?*

*What are the options for managing orbital capillary hemangiomas?*

- Observation** is reasonable for small, nonamblyogenic lesions
- For lesions requiring treatment, systemic **propranolol** is probably first-line
- Superficial lesions can be treated with topical **timolol**, or **laser**
- Treatment-resistant lesions may require **surgical excision**

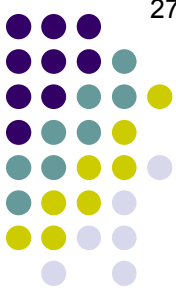
**Mechanical**

Plexiform neurofibroma  
**Capillary hemangioma**

**Disclaimer:** These treatment guidelines were taken from the latest (2018-19) version of the BCSC *Peds* book. It should be noted that the *Orbit* book indicates that **steroids** (systemic or local) are the preferred first-line treatment for capillary hemangiomas. In contrast, the *Peds* book doesn't even mention them. Which book is right? I'm going with the *Peds* version. But as always, caveat emptor.

It appears **bluish** if it's...**deep**

It appears **strawberry-like** if it's...**superficial**



Q

## Congenital Ptosis

<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

--Ptosis

--

--

and, of course,

--

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

## Congenital Ptosis

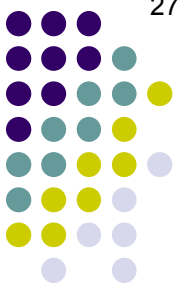


<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

--Ptosis  
 --Telecanthus  
 --Epicanthus inversus  
 and, of course,  
 --Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	



## Congenital Ptosis

©2010. The University of Iowa

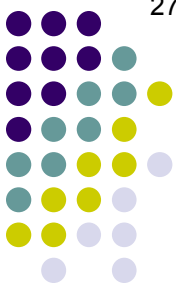


Blepharophimosis syndrome



## Q

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome aka...

- Ptosis
- Telecanthus
- Epicanthus inversus
- and, of course,
- Blepharophimosis

*Blepharophimosis syndrome has two other names. What are they?*

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome aka congenital eyelid syndrome, and

--**Ptosis**

--Telecanthus

--**Epicanthus inversus**

and, of course,

--**Blepharophimosis**

blepharophimosis-ptosis-epicanthus inversus syndrome

*Blepharophimosis syndrome has two other names. What are they?*

--Congenital eyelid syndrome

--Blepharophimosis-ptosis-epicanthus inversus syndrome (BPES)

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

## Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus
- and, of course,
- Blepharophimosis**

*What does it mean to say a pt has blepharophimosis?*

<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

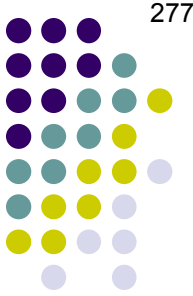


<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis
<p><i>Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?</i></p> <p>--Ptosis --Telecanthus --Epicanthus inversus and, of course, --<b>Blepharophimosis</b></p>	
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

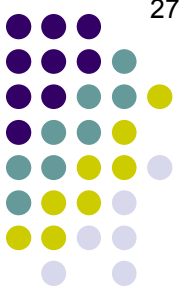
*What does it mean to say a pt has blepharophimosis?*  
It means her/his palpebral fissures are abnormally  
in both vertical and horizontal extent

one word

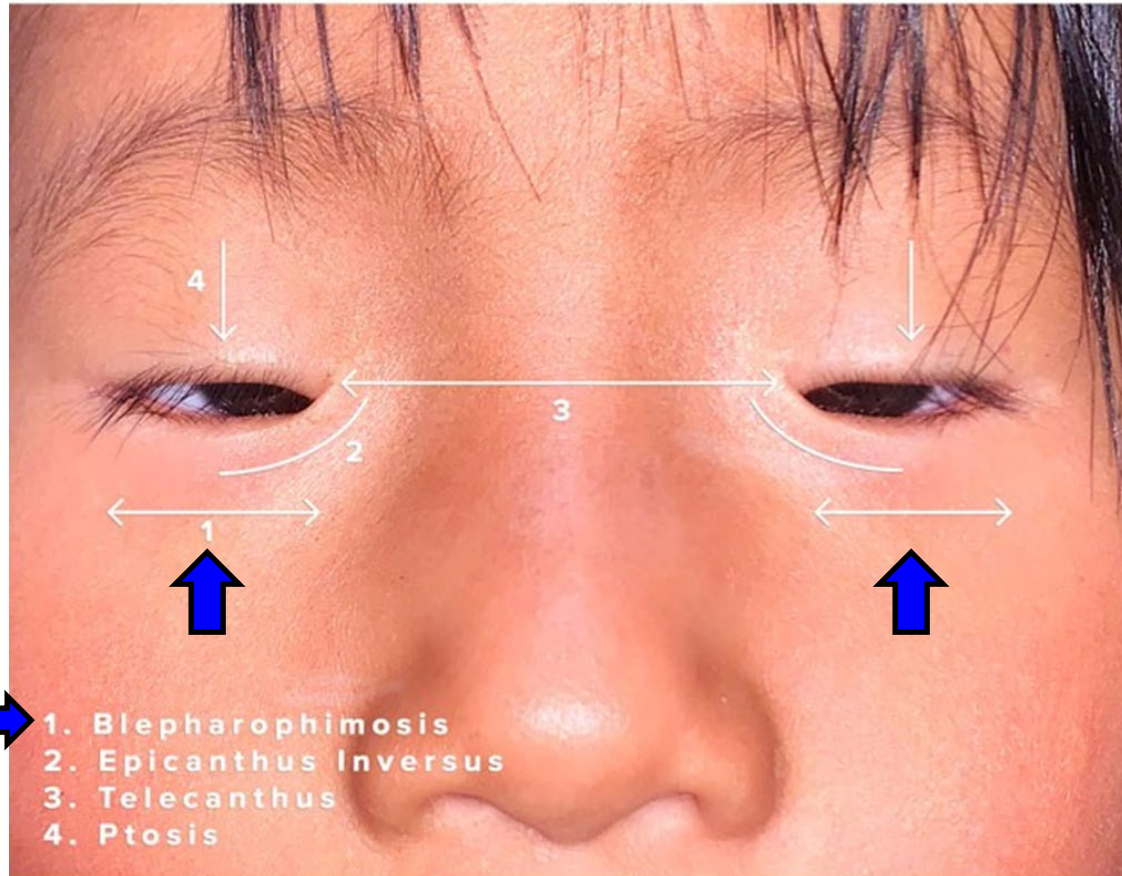
## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis
<p><i>Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?</i></p> <p>--Ptosis  --Telecanthus  --Epicanthus inversus  and, of course,  --<b>Blepharophimosis</b></p>	
	<p><i>What does it mean to say a pt has blepharophimosis?</i>  It means her/his palpebral fissures are abnormally short in both vertical and horizontal extent</p>
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	



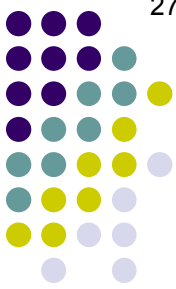
## Congenital Ptosis



Blepharophimosis syndrome: Blepharophimosis

## Q

# Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

--Ptosis

--**Telecanthus**

--Epicanthus inversus

and, of course,

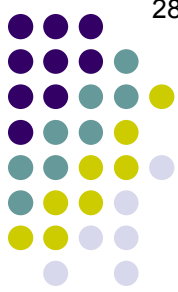
--Blepharophimosis

*What is telecanthus?*

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

## A

# Congenital Ptosis



<i><b>General categories of ptosis etiology</b></i>	<i><b>Specific causes of congenital ptosis within each category</b></i>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?

--Ptosis

--**Telecanthus**

--Epicanthus inversus

and, of course,

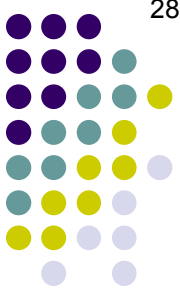
--Blepharophimosis

*What is telecanthus?*

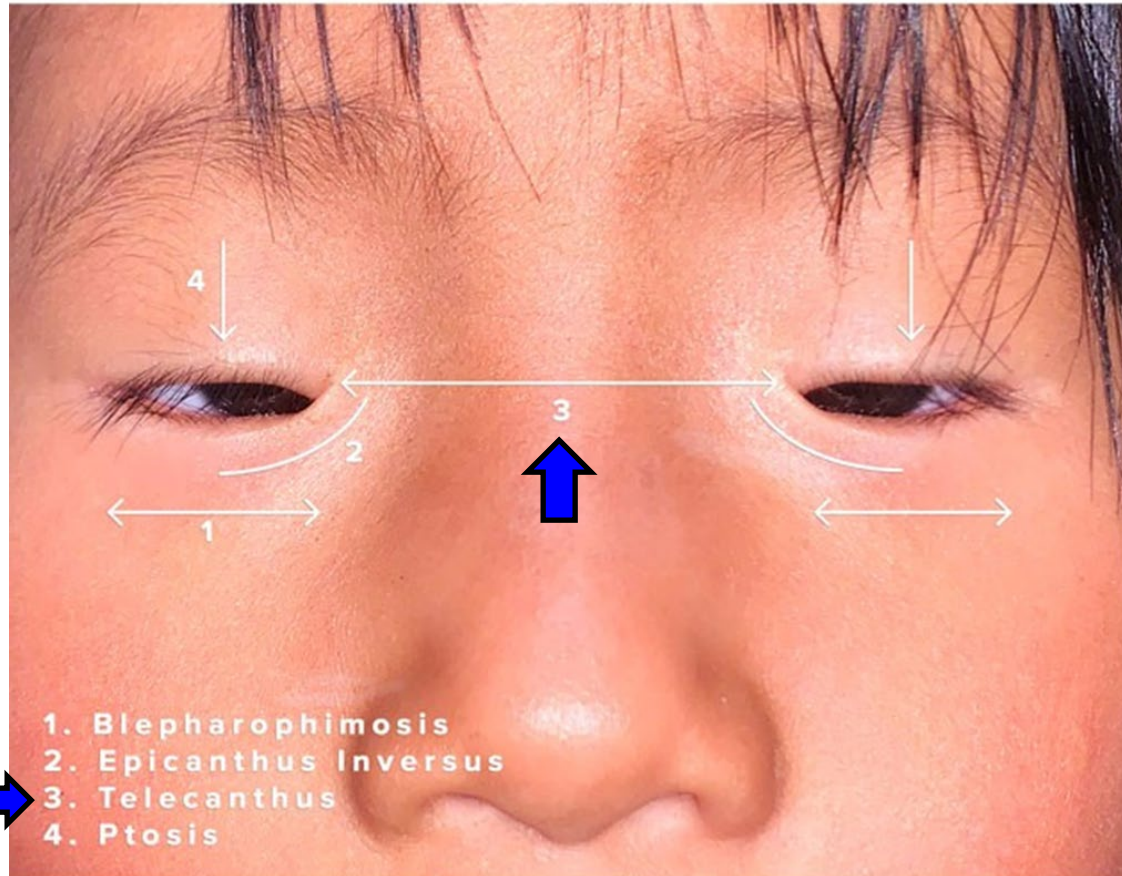
An abnormally increased distance between the medial canthi

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	





## Congenital Ptosis

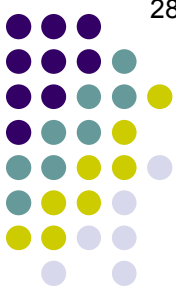


1. Blepharophimosis
2. Epicanthus Inversus
3. Telecanthus
4. Ptosis

Blepharophimosis syndrome: Telecanthus

Q

## Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus** inversus

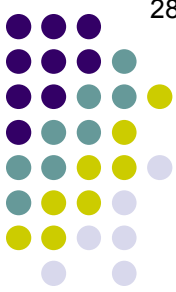
*What does the term epicanthus refer to in this context?*

hemangioma

**osis syndrome**

## A

# Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus** inversus

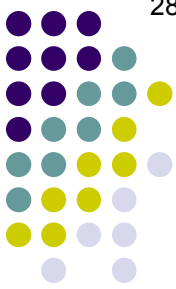
*What does the term epicanthus refer to in this context?*

*An epicanthus is a fold of skin extending above and below the medial canthal region*

**osis syndrome**

## Q

# Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*and of course*

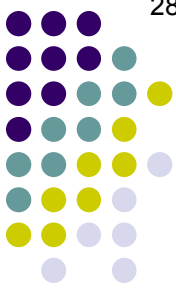
*What does the term epicanthus refer to in this context?*

An *epicanthus* is a fold of skin extending above and below the medial canthal region

*What is epicanthus inversus?*

**ptosis syndrome**

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*end of course*

*What does the term epicanthus refer to in this context?*

*An epicanthus is a fold of skin extending above and below the medial canthal region*

*What is epicanthus inversus?*

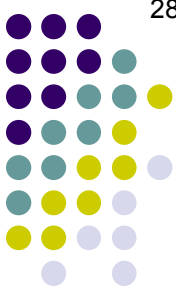
*It is one type of epicanthus*

hemangioma

**osis syndrome**

## Q

# Congenital Ptosis



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*and of course*

*What does the term epicanthus refer to in this context?*

An *epicanthus* is a fold of skin extending above and below the medial canthal region

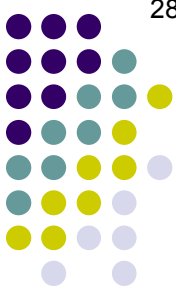
*What is epicanthus inversus?*

It is one type of epicanthus

*How many types are there?*

hemangioma

**osis syndrome**



<b><i>General categories of ptosis etiology</i></b>	<b><i>Specific causes of congenital ptosis within each category</i></b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*and of course*

*What does the term epicanthus refer to in this context?*

An epicanthus is a fold of skin extending above and below the medial canthal region

*What is epicanthus inversus?*

It is one type of epicanthus

*How many types are there?*

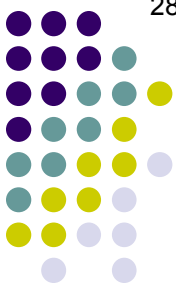
Four

hemangioma

**ptosis syndrome**

## Q

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*and of course*

*What does the term epicanthus refer to in this context?*

An *epicanthus* is a fold of skin extending above and below the medial canthal region

*What is epicanthus inversus?*

It is one type of epicanthus

*How many types are there?*

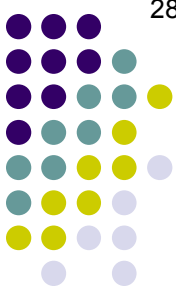
Four

*What are the other three?*

hemangioma

**ptosis syndrome**





<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

*Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis syndrome?*

- Ptosis
- Telecanthus
- Epicanthus inversus**

*What does the term epicanthus refer to in this context?*

An *epicanthus* is a fold of skin extending above and below the medial canthal region

*What is epicanthus inversus?*

It is one type of epicanthus

*How many types are there?*

Four

*What are the other three?*

Coming in hot...

hemangioma

**ptosis syndrome**

## Q

## Congenital Ptosis



*What are the four types of epicanthus?*

- Epicanthus
- Epicanthus *inversus*      *mnemonic forthcoming...*
- Epicanthus
- Epicanthus

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

Q

## Congenital Ptosis



*What are the four types of epicanthus?*

--Epicanthus **t** *(start here)*



--Epicanthus **i***nversus*

*mnemonic forthcoming...TIPS*

--Epicanthus **p**

--Epicanthus **s**

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

# A/Q

## Congenital Ptosis



*What are the four types of epicanthus?*

- Epicanthus ***tarsalis***
- Epicanthus ***inversus***
- Epicanthus ***p*** (next)
- Epicanthus ***s***



--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

# A/Q

## Congenital Ptosis



*What are the four types of epicanthus?*

- Epicanthus **tarsalis**
- Epicanthus **inversus**
- Epicanthus **palpebralis**
- Epicanthus **s** (next)



--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

## A

## Congenital Ptosis



*What are the four types of epicanthus?*

- Epicanthus ***tarsalis***
- Epicanthus ***inversus***
- Epicanthus ***palpebralis***
- Epicanthus ***supraciliaris***

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

Q

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

--Epicanthus *tarsalis*: Primarily   lid

--Epicanthus *inversus*:

--Epicanthus *palpebralis*:

--Epicanthus *supraciliaris*:

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

## A

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

--Epicanthus *tarsalis*: **Primarily upper lid**

--Epicanthus *inversus*:

--Epicanthus *palpebralis*:

--Epicanthus *supraciliaris*:

--Telecanthus

--**Epicanthus inversus**

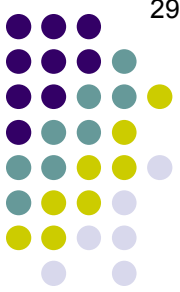
and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	



## Congenital Ptosis



Epicanthus tarsalis

## Q

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*:
- Epicanthus *supraciliaris*:

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

## A

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*:
- Epicanthus *supraciliaris*:

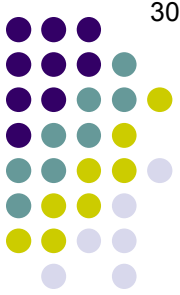
--Telecanthus

--**Epicanthus inversus**

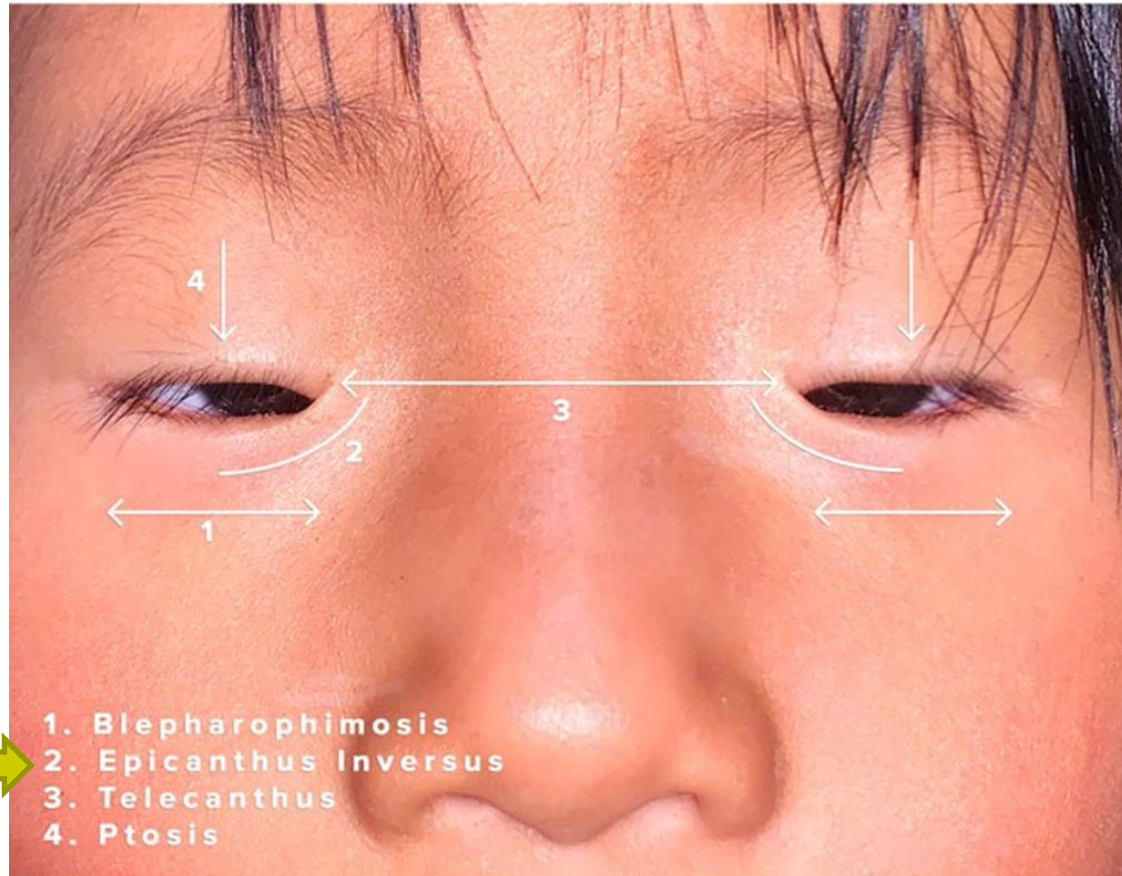
and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	



## Congenital Ptosis



1. Blepharophimosis
2. Epicanthus Inversus
3. Telecanthus
4. Ptosis

Blepharophimosis syndrome: Epicanthus inversus



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*: [ ] and [ ] equally
- Epicanthus *supraciliaris*:

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

## A

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*: Upper and lower equally
- Epicanthus *supraciliaris*:

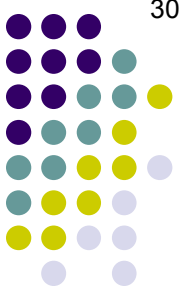
--Telecanthus

--**Epicanthus inversus**

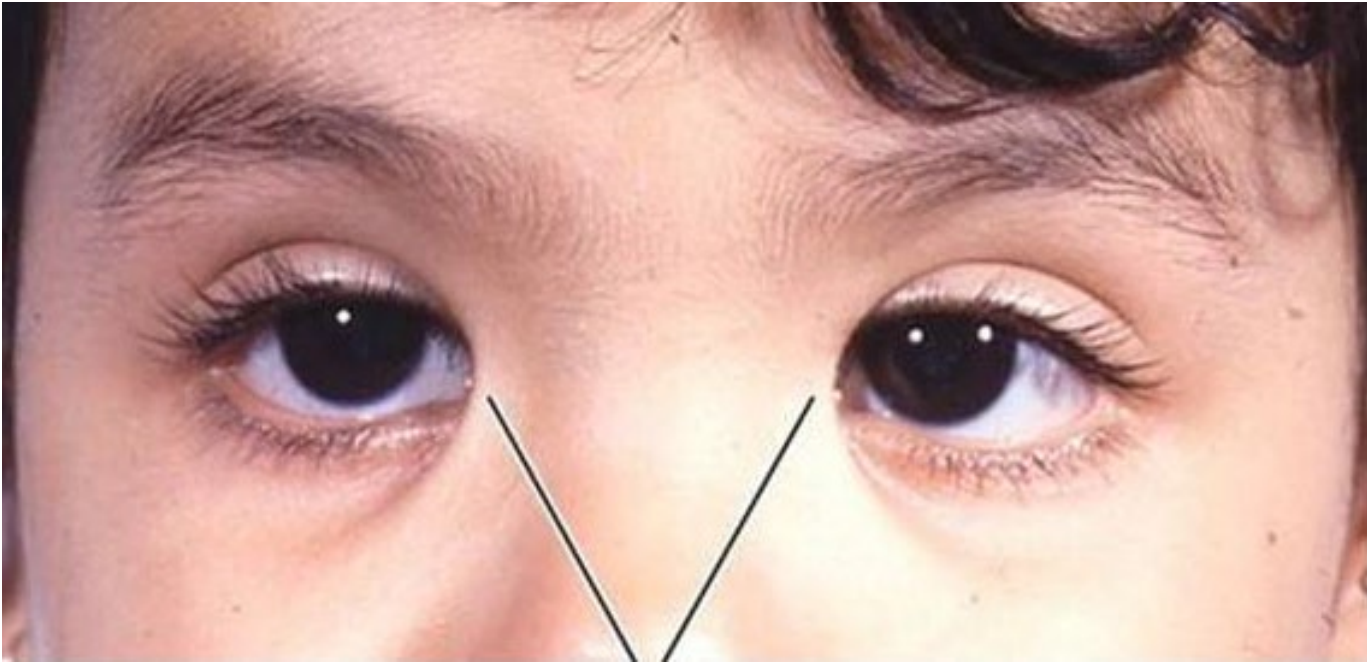
and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	



## Congenital Ptosis



Epicanthus palpebralis



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*: Upper and lower equally
- Epicanthus *supraciliaris*: From not lid to lid

--Telecanthus

--Epicanthus inversus

and, of course,

--Blepharophimosis

	Capillary Hemangioma
Syndromic	Blepharophimosis syndrome
Traumatic	



## A

## Congenital Ptosis



*What are the four types of epicanthus? What's involved for each?*

- Epicanthus *tarsalis*: Primarily upper lid
- Epicanthus *inversus*: Primarily lower lid
- Epicanthus *palpebralis*: Upper and lower equally
- Epicanthus *supraciliaris*: From brow to lower lid

--Telecanthus

--**Epicanthus inversus**

and, of course,

--Blepharophimosis

	Capillary Hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
Traumatic	

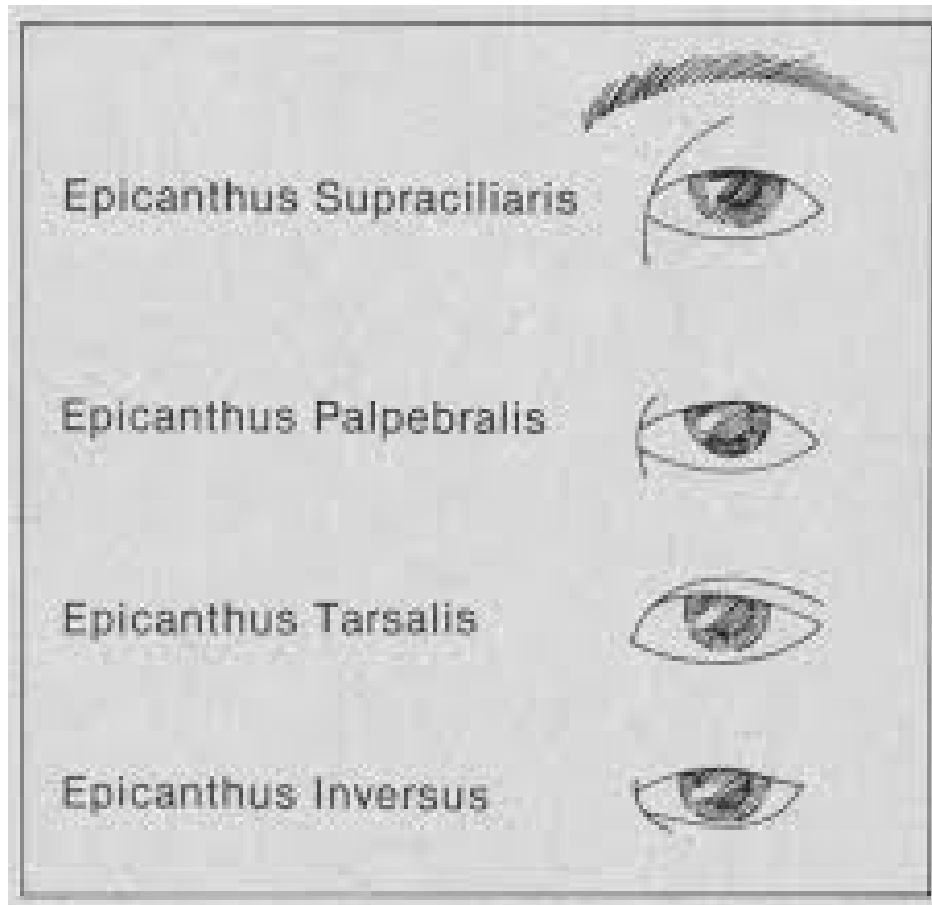


## Congenital Ptosis

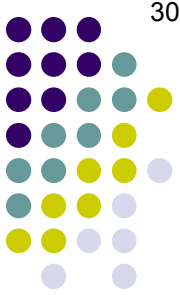


Epicanthus supraciliaris

## Congenital Ptosis

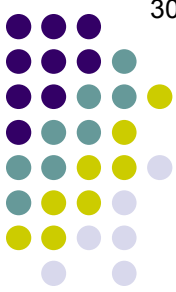


Epicanthal folds overview



## Q

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis?

--**Ptosis**

--Telecanthia

--Epicanthus inversus

and, of course,

--Blepharophimosis

*Is the ptosis purely structural (ie, 2ndry to blepharophimosis), or is there a problem with the levator?*

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

## A

# Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis?

--**Ptosis**

*Is the ptosis purely structural (ie, 2ndry to blepharophimosis), or is there a problem with the levator?*

--Telecanthia

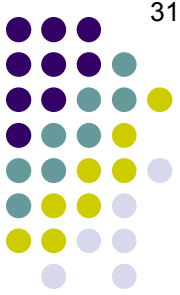
In fact levator function is usually very poor

--Epicanthus inversus

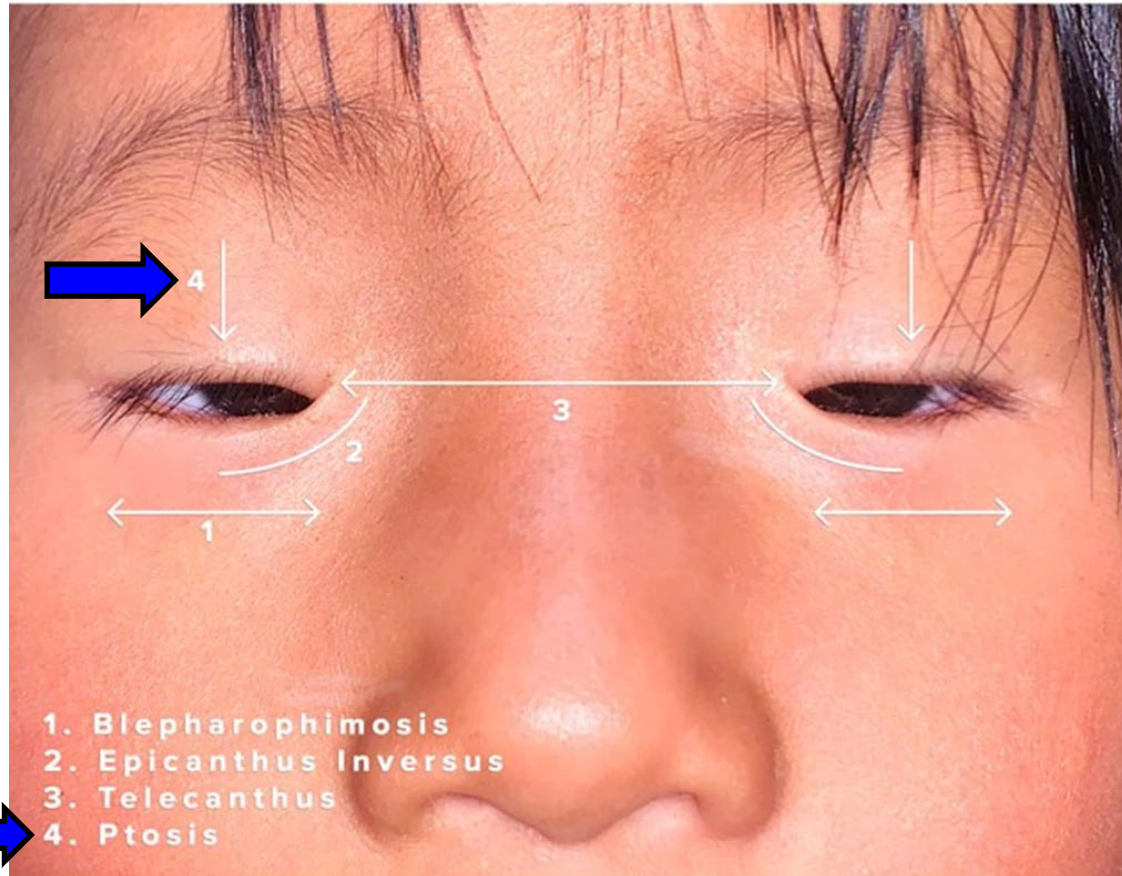
and, of course,

--Blepharophimosis

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

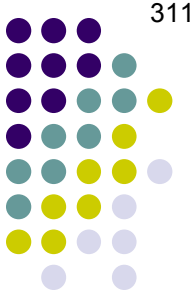


## Congenital Ptosis



Blepharophimosis syndrome: Ptosis

## Congenital Ptosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis?

--**Ptosis**

--Telecanthia

--Epicanthus inversus

and, of course

--Blepharophimosis

Is the ptosis purely structural (ie, secondary to blepharophimosis), or is there a problem with the levator?

In fact, **levator function is usually very poor**

What does this imply regarding surgical repair?

<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	



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It implies (correctly) that a

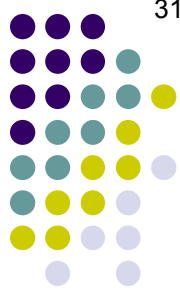
two words

is usually necessary

Syndromic	Blepharophimosis syndrome
Traumatic	



# Congenital Ptosis



General categories of ptosis etiology	Specific causes of congenital ptosis within each category
Myogenic	Congenital myogenic ptosis

Other than ptosis, what are the three other defining ophthalmic features of blepharophimosis?

--Ptosis

--Telecanthia

--Epicanthus inversus

and, of course

--Blepharophimosis

Is the ptosis purely structural (ie, secondary to blepharophimosis), or is there a problem with the levator?

In fact, **levator function is usually very poor**

What does this imply regarding surgical repair?

It implies (correctly) that a frontalis sling is usually necessary

Syndromic	Blepharophimosis syndrome
Traumatic	



Q

## Congenital Ptosis

<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis
<b>Syndromic</b>	Capillary hemangioma <b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	

Other than ptosis, what are the ~~three other~~ <sup>non-</sup> defining ophthalmic features of blepharophimosis syndrome?

--Ptosis

--?

--Telecanthus

--?

--Epicanthus inversus

and, of course,

--Blepharophimosis



<b>General categories of ptosis etiology</b>	<b>Specific causes of congenital ptosis within each category</b>
<b>Myogenic</b>	Congenital myogenic ptosis

Other than ptosis, what are the ~~three other~~ <sup>non-</sup> defining ophthalmic features of blepharophimosis syndrome?

- Ptosis
- Telecanthus
- Epicanthus inversus
- and, of course,
- Blepharophimosis

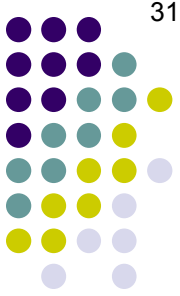
--Hypoplastic  
-- ears

two words

one  
word

	Capillary hemangioma
<b>Syndromic</b>	<b>Blepharophimosis syndrome</b>
<b>Traumatic</b>	





## Congenital Ptosis



Hypoplastic nasal bridge  
(note also the chin-up positioning)



Lop ears

Blepharophimosis syndrome