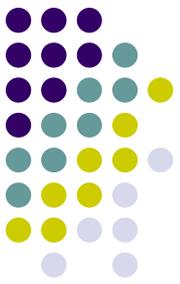


# Q

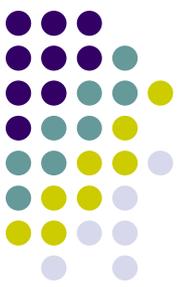
## Cataracts Associated with Trauma or Radiation



- Cataracts associated with blunt trauma are often  or  initially

# A

## Cataracts Associated with Trauma or Radiation

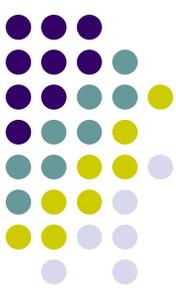


- Cataracts associated with blunt trauma are often **stellate** or **rosette** initially



# Q

## Cataracts Associated with Trauma or Radiation

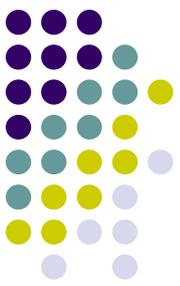


- Cataracts associated with blunt trauma are often **stellate** or **rosette** initially, but may progress to two words

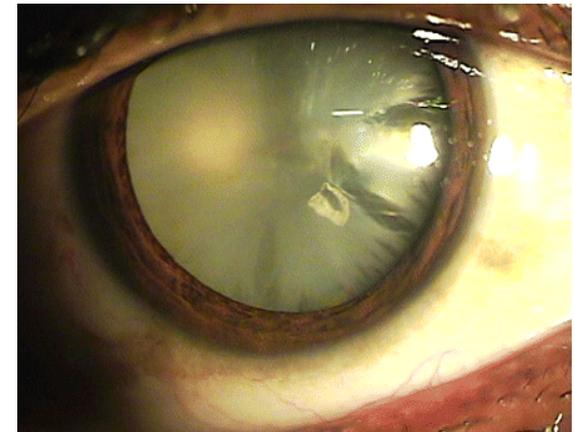


# A

## Cataracts Associated with Trauma or Radiation

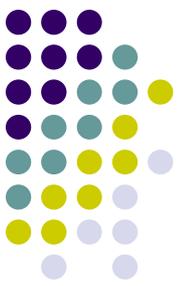


- Cataracts associated with blunt trauma are often **stellate** or **rosette** initially, but may progress to **total opacification**



# Q

## Cataracts Associated with Trauma or Radiation



- **Cataracts associated with blunt trauma** are often **stellate** or **rosette** initially, but may progress to **total opacification**

*Can blunt-trauma-induced cataract resolve spontaneously?*

# A

## Cataracts Associated with Trauma or Radiation

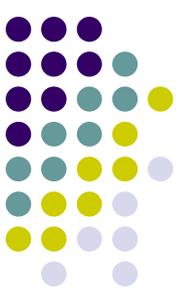


- **Cataracts associated with blunt trauma** are often **stellate** or **rosette** initially, but may progress to **total opacification**

*Can blunt-trauma-induced cataract resolve spontaneously?*  
It can—albeit only rarely, and only if the trauma was mild

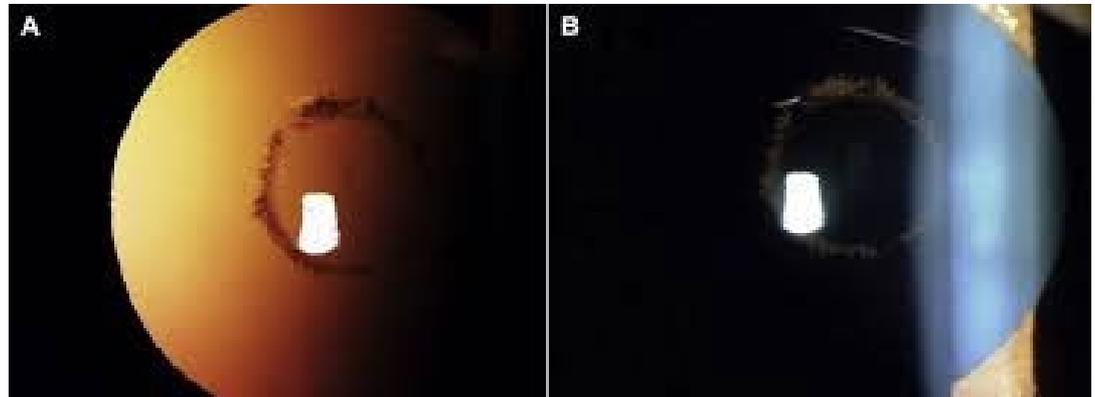
# Q

## Cataracts Associated with Trauma or Radiation



- Cataracts associated with blunt trauma are often **stellate** or **rosette** initially, but may progress to **total opacification**
- What is the eponym for the ring of pupillary-ruff pigment on the anterior capsule seen in conjunction with blunt-trauma cataracts?

(tennis ball vs eye) in  
A, retroillumination,  
and B, direct



# Q/A

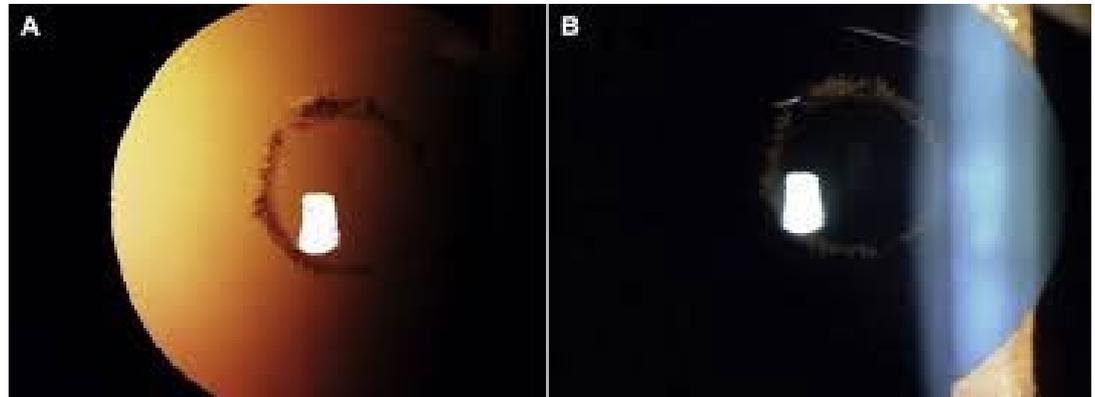
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A **eponym** *ring*

**ring**  
(tennis ball vs eye) in  
A, retroillumination,  
and B, direct



# A

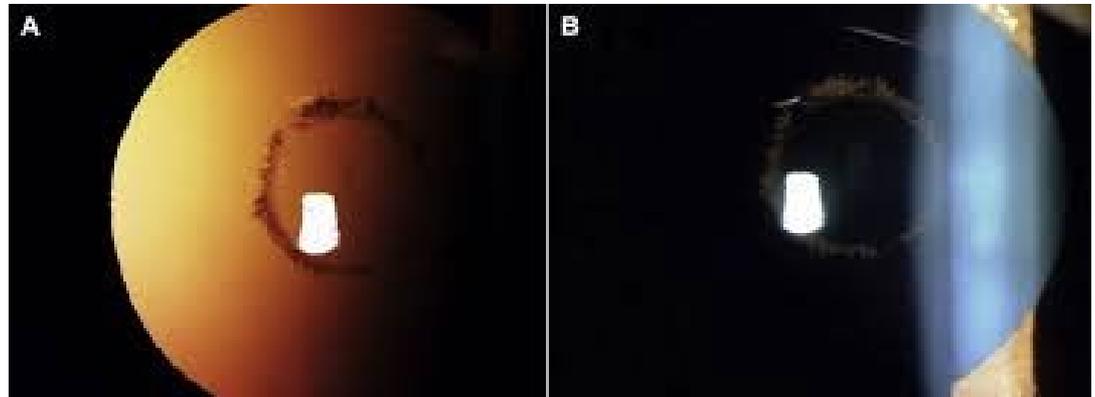
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A **Vossius** ring

Vossius ring  
(tennis ball vs eye) in  
A, retroillumination,  
and B, direct





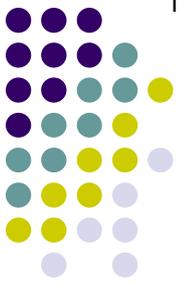
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**A **Vossius ring****

*Is a Vossius ring visually significant in and of itself?*



# A

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- What is the eponym for the ring of pupillary-ruff pigment on the anterior capsule seen in conjunction with blunt-trauma cataracts?

**A **Vossius ring****

*Is a Vossius ring visually significant in and of itself?*

No. But while not visually significant, it is most assuredly **clinically** significant.



# Q

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*Is a Vossius ring visually significant in and of itself?*

No. But while not visually significant, it is most assuredly **clinically** significant.

*Why is that?*



# A

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- What is the eponym for the ring of pupillary-ruff pigment on the anterior capsule seen in conjunction with blunt-trauma cataracts?

**A **Vossius** ring**

*Is a Vossius ring visually significant in and of itself?*

No. But while not visually significant, it is most assuredly **clinically** significant.

*Why is that?*

Because it signifies that the eye in question has experienced significant trauma, and thus is at much greater risk for intra- and post-CE complications

## Q

## Cataracts Associated with Trauma or Radiation

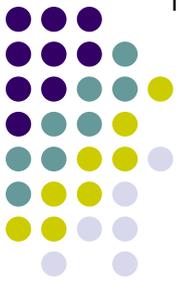


- Cataracts associated with **blunt trauma** are

*In addition to cataract formation, what other serious lens-related sequelae often follows blunt trauma to the eye?*

## A

## Cataracts Associated with Trauma or Radiation

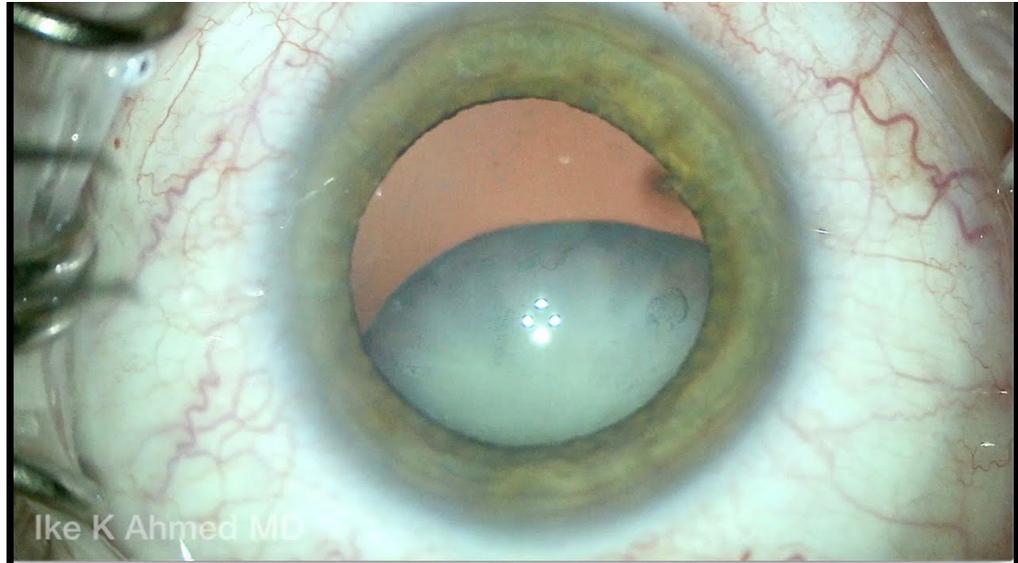
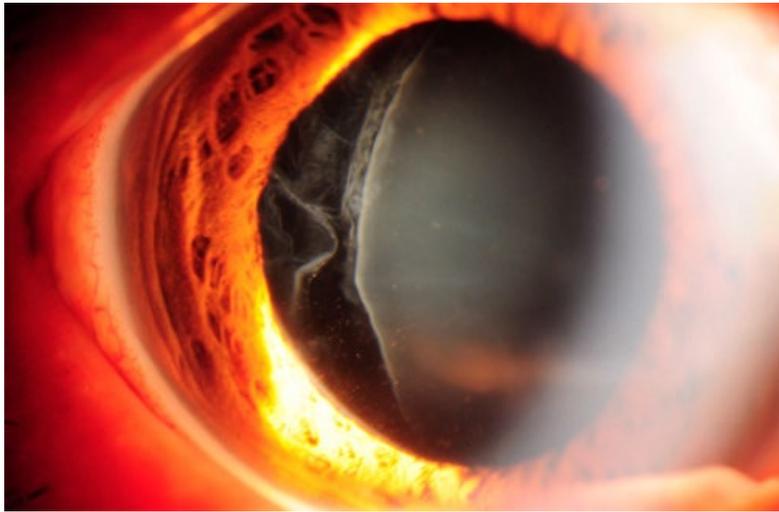


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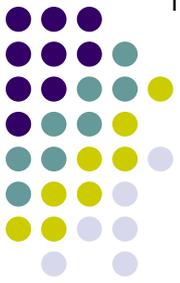
*In addition to cataract formation, what other serious lens-related sequelae often follows blunt trauma to the eye?*

Lens subluxation or dislocation

## Cataracts Associated with Trauma or Radiation



Traumatic cataract with subluxation



# Q

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*In addition to cataract formation, what other serious lens-related sequelae often follows blunt trauma to the eye?*

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*Other than visible displacement from its proper location, what lens-related sign is very worrisome for zonular disruption secondary to trauma?*



# A

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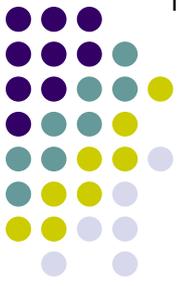
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Phacodonesis



# Q

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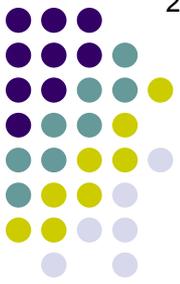
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### **Phacodonesis**

*To what does the term phacodonesis refer?*



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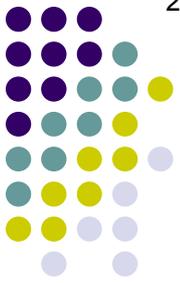
Lens subluxation or dislocation

*Other than visible displacement from its proper location, what lens-related sign is very worrisome for zonular disruption secondary to trauma?*

### **Phacodonesis**

*To what does the term phacodonesis refer?*

A visible tremulousness of the lens in response to eye movements



# Q

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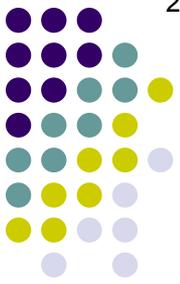
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*A similar trauma-induced tremulousness may be observed in the iris. What is it called?*



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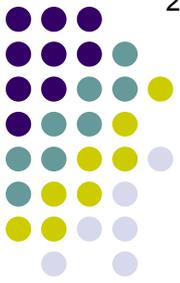
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**Iridodonesis**



Q

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**Lens subluxation or dislocation**

*What is the well la-dee-da, aren't you a gunner? term for displacement of the lens from its normal anatomic position (ie, lens subluxation/dislocation)?*

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# A

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**Lens subluxation or dislocation**

*What is the well la-dee-da, aren't you a gunner? term for displacement of the lens from its normal anatomic position (ie, lens subluxation/dislocation)?*  
Ectopia lentis

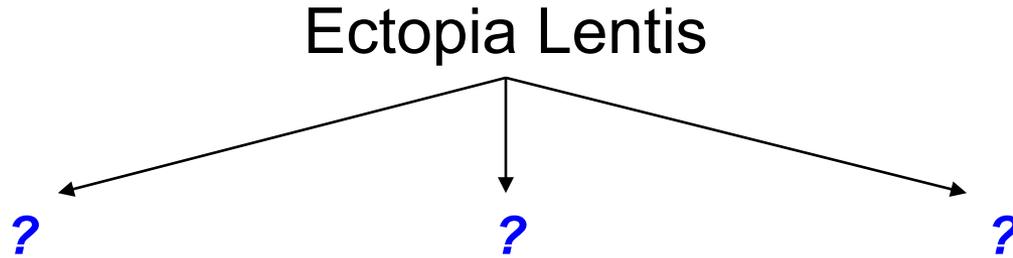
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Iridodonesis

# Q

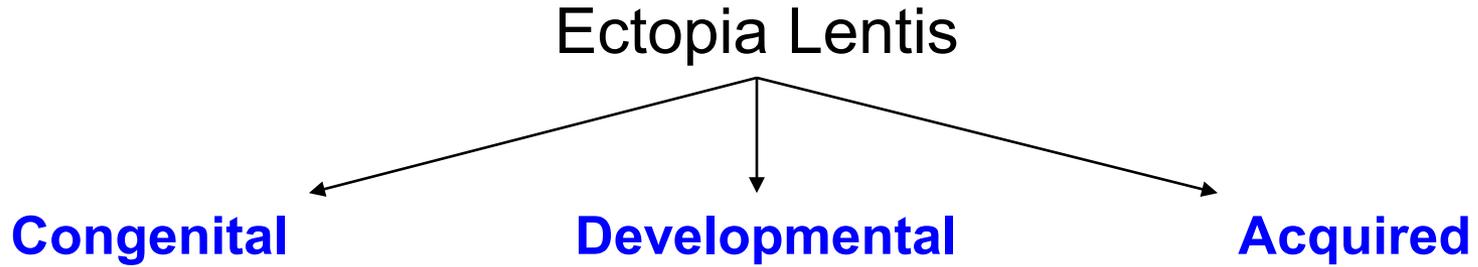
## Cataracts Associated with Trauma or Radiation



*The BCSC series divides ectopia lentis into three categories:*

# A

## Cataracts Associated with Trauma or Radiation

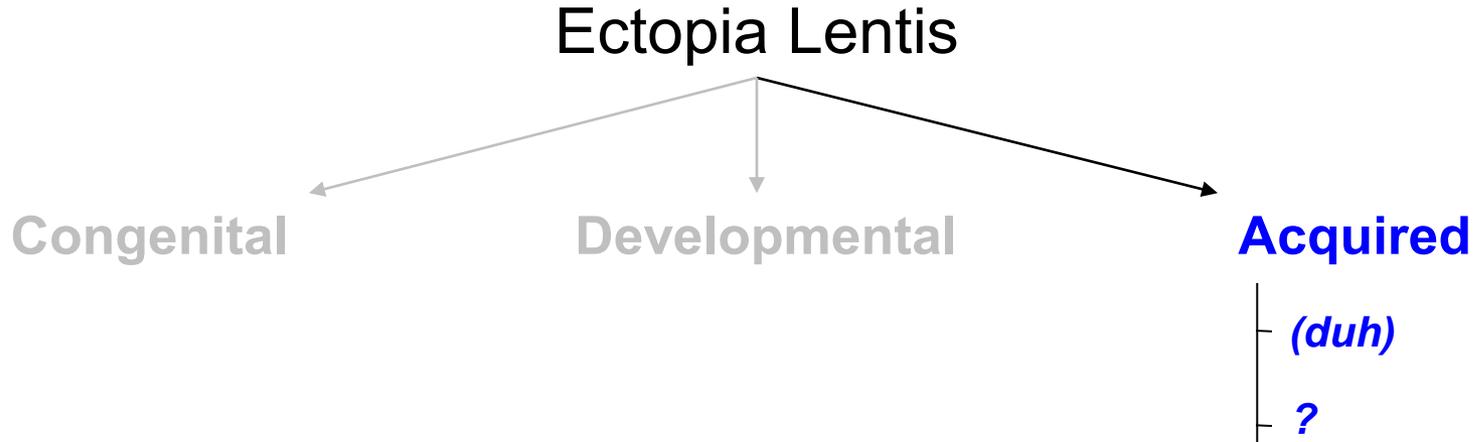


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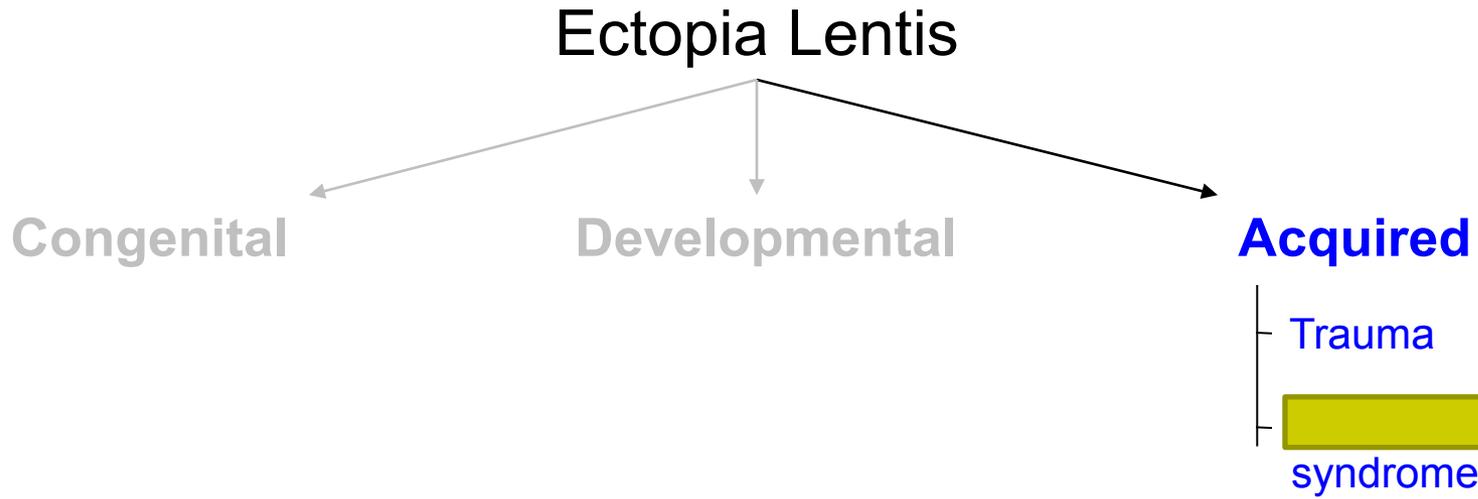
Q

## Cataracts Associated with Trauma or Radiation

27



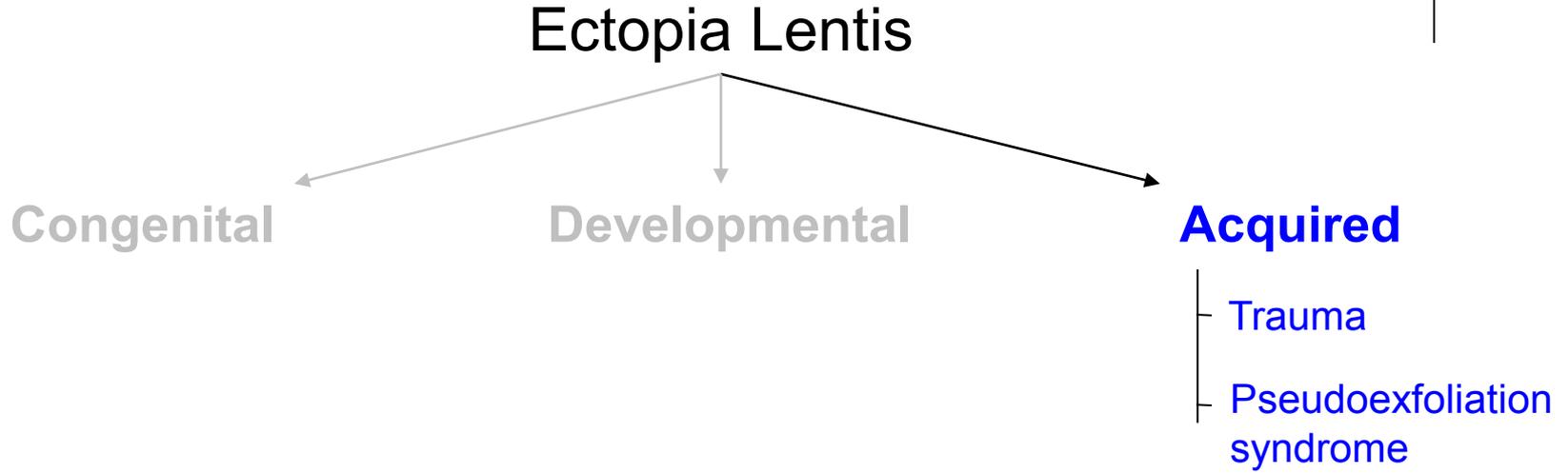
What are the two **acquired** causes covered in the BCSC?



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A

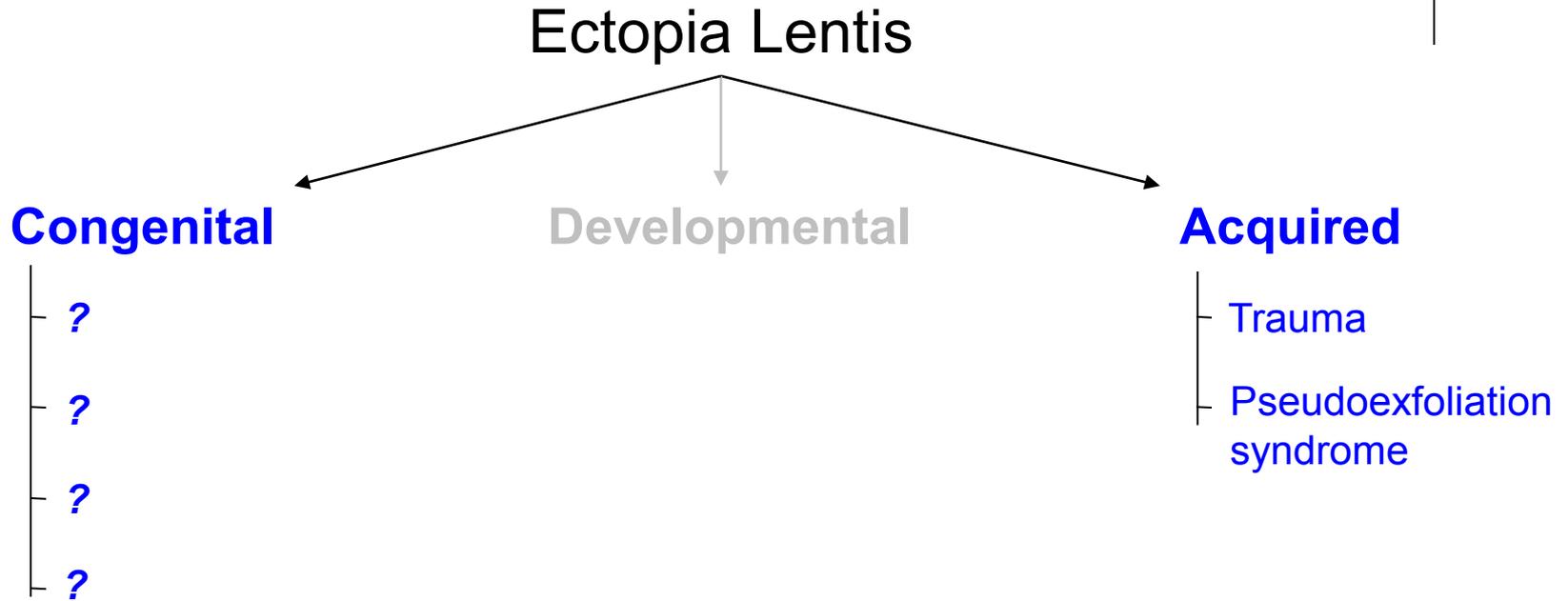
## Cataracts Associated with Trauma or Radiation



*What are the two **acquired** causes covered in the BCSC?*

Q

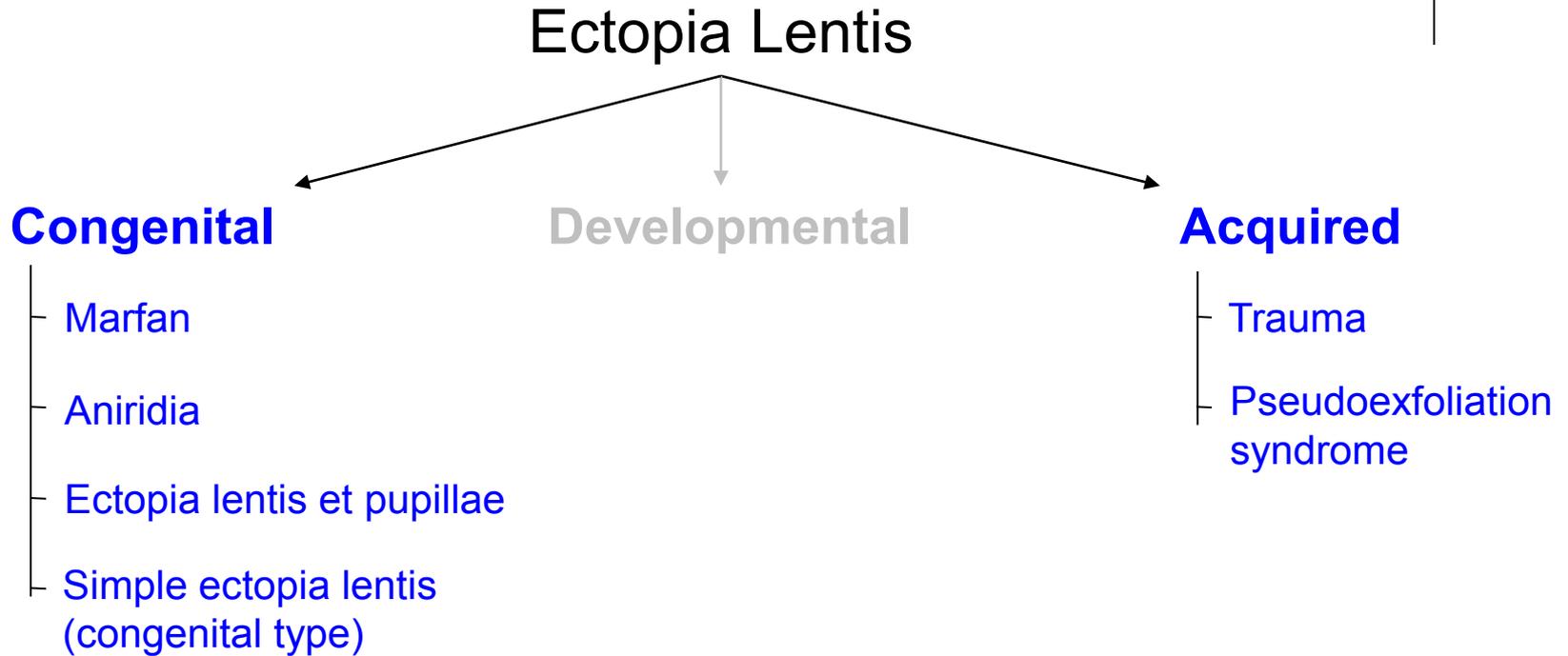
## Cataracts Associated with Trauma or Radiation



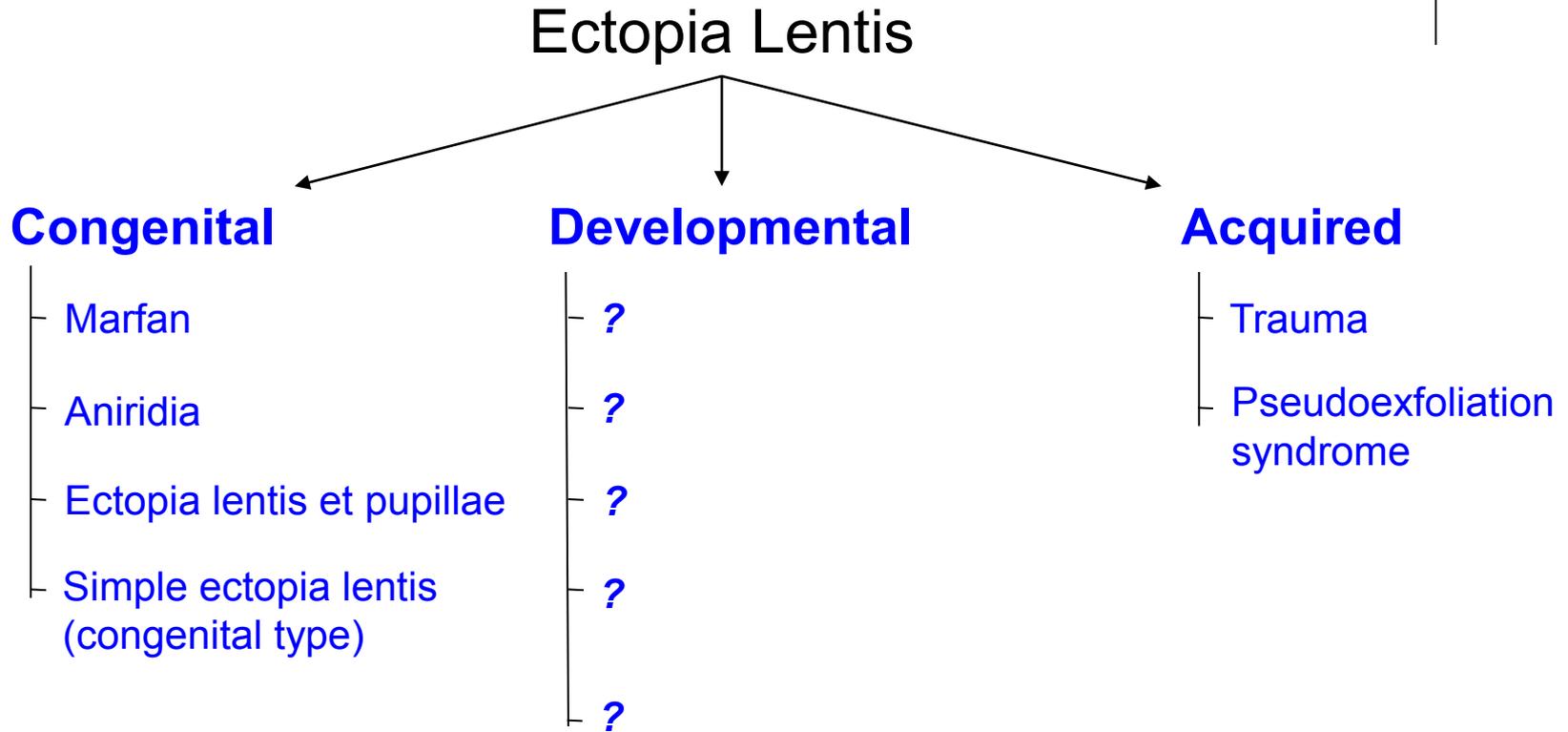
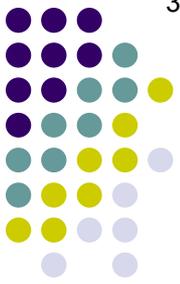
What are the four **congenital** causes covered in the BCSC?

# A

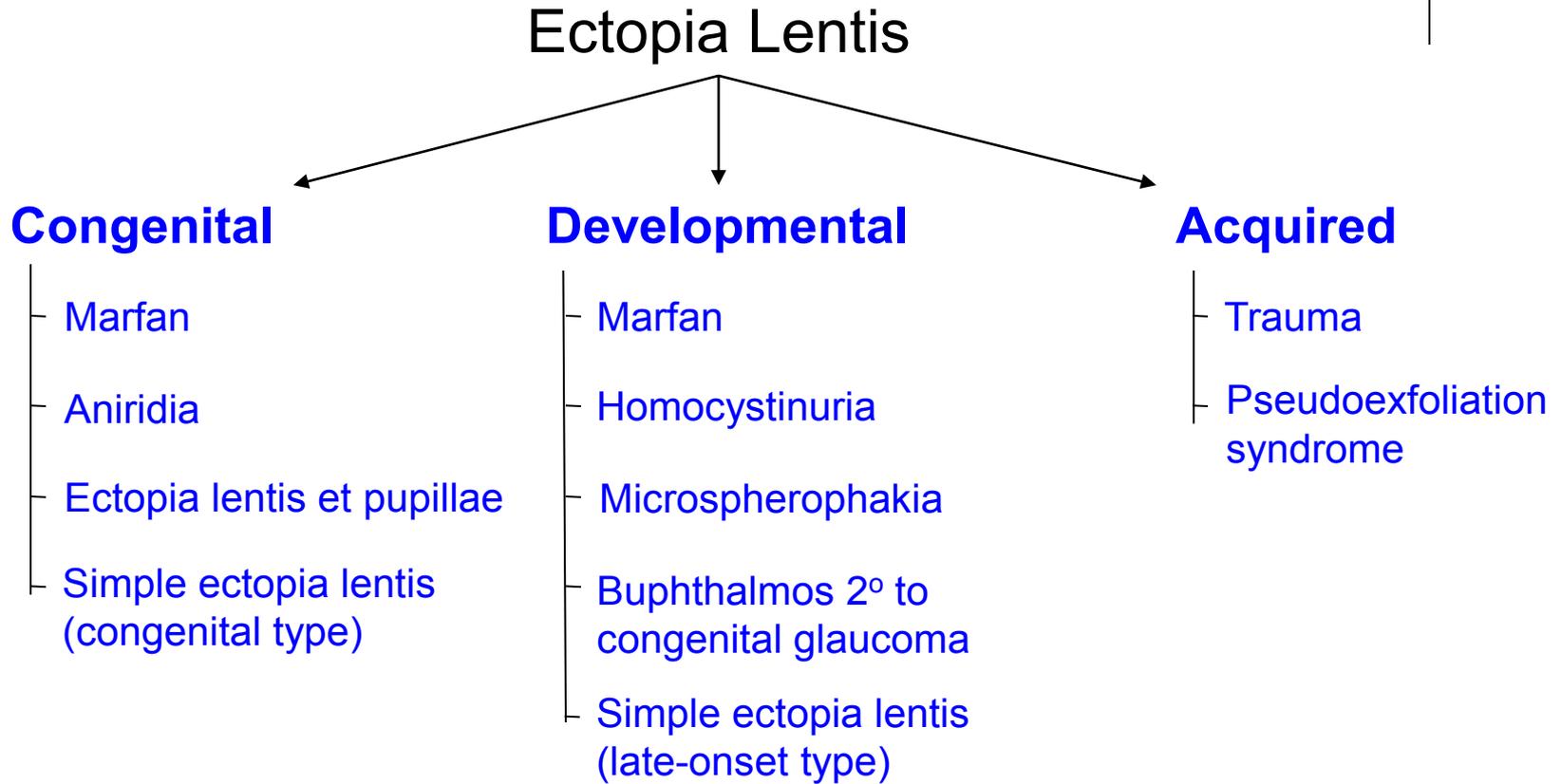
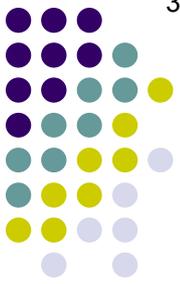
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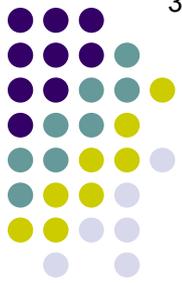


*What are the five **developmental** causes covered in the BCSC?*

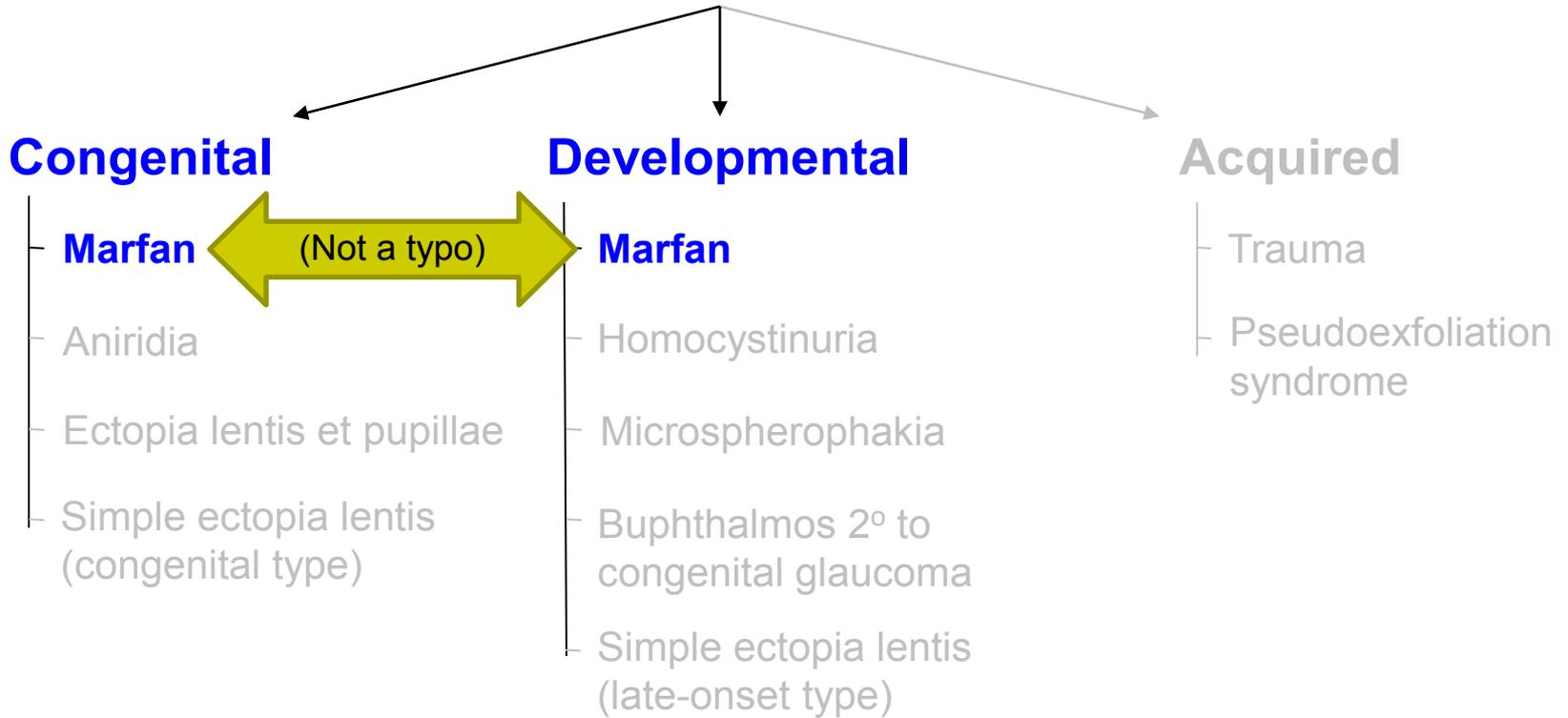


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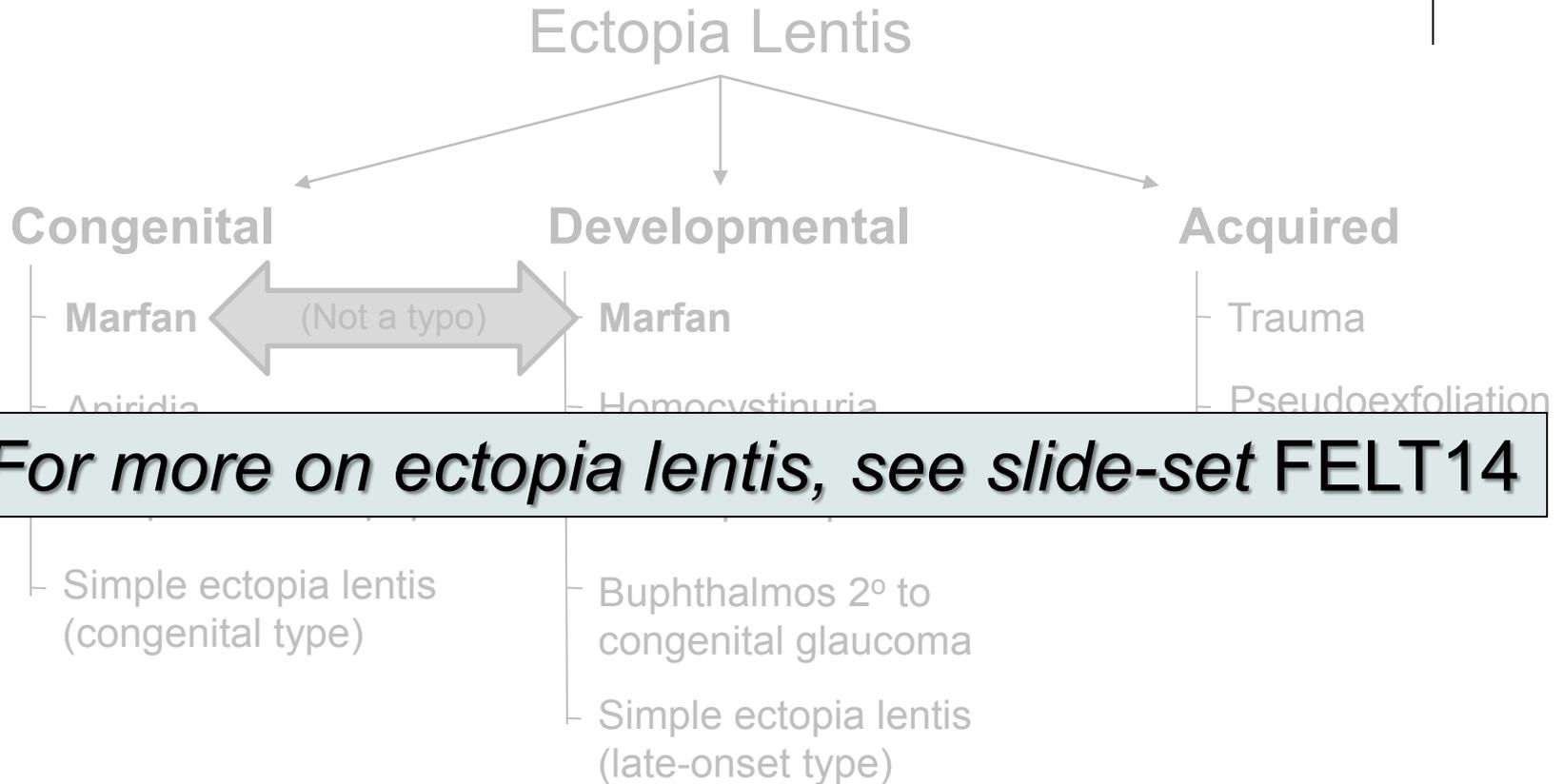
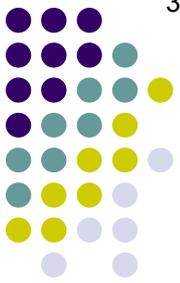
# Cataracts Associated with Trauma or Radiation



## Ectopia Lentis



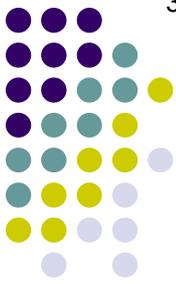
## Cataracts Associated with Trauma or Radiation



# Q

## Cataracts Associated with Trauma or Radiation

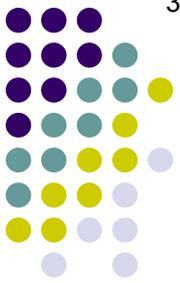
- Is exposure to radiation associated with cataract formation?

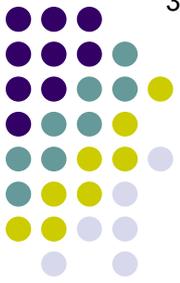


# A

## Cataracts Associated with Trauma or Radiation

- Is exposure to radiation associated with cataract formation? **Yes**





# Q

## Cataracts Associated with Trauma or Radiation

- Is exposure to radiation associated with cataract formation? **Yes**
- Which of the following forms of radiation cause cataracts?

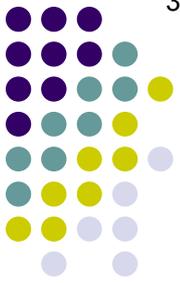
Ionizing:

Charged particle:

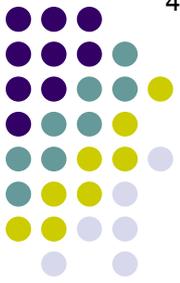
Infrared:

UV:

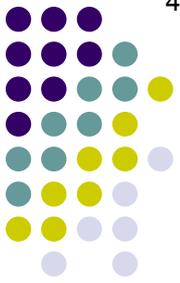
Microwave:



- Is exposure to radiation associated with cataract formation? **Yes**
- Which of the following forms of radiation cause cataracts?
  - Ionizing: **Most definitely**
  - Charged particle:
  - Infrared:
  - UV:
  - Microwave:



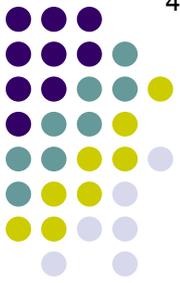
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- Is exposure to radiation associated with cataract formation? **Yes**
- Which of the following forms of radiation cause cataracts?
  - Ionizing: **Most definitely**
  - Charged particle: **Yes**
  - Infrared: **Yeah, but...**
  - UV:
  - Microwave:

# Q/A

## Cataracts Associated with Trauma or Radiation



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# A

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  - Infrared: **Yeah, but...**
  - UV: **Maybe**
  - Microwave: **Eh**



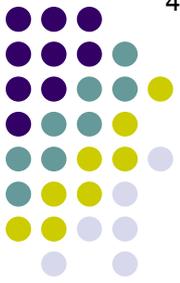
# Q

## Cataracts Associated with Trauma or Radiation

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- Which of the following forms of radiation cause cataracts?

**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*



# A

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- Which of the following forms of radiation cause cataracts?

**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*  
During an X-ray



# Q

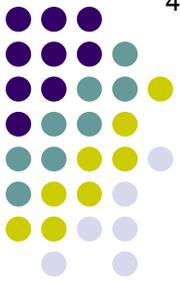
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*In what situation is* *You mean one XR can cause a cataract?!*

**During an X-ray**



# A

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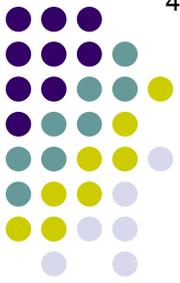
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**During an X-ray**

*You mean one XR can cause a cataract?!*

*Not hardly, no*



# Q

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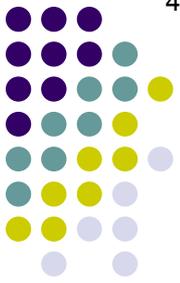
*In what situation is*

**During an X-ray**

*You mean one XR can cause a cataract?!*

*Not hardly, no*

*OK then, give me some perspective—how many CXR's worth of ionizing radiation would it take to cause a cataract?*



# A

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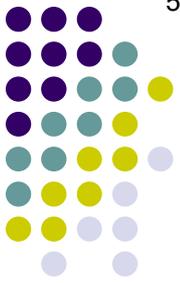
**During an X-ray**

*You mean one XR can cause a cataract?!*

Not hardly, no

*OK then, give me some perspective—how many CXR's worth of ionizing radiation would it take to cause a cataract?*

About 200 (at least)



# Q

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- Which of the following forms of radiation cause cataracts?

**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*

During an X-ray

*How sensitive is the lens to ionizing radiation?*



# A

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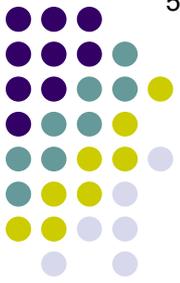
**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*

During an X-ray

*How sensitive is the lens to ionizing radiation?*

Extremely so, probably more so than the other forms of radiation



# Q

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*In what situation is one most likely to be exposed to ionizing radiation?*

During an X-ray

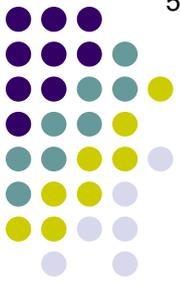
*How sensitive is the lens to ionizing radiation?*

Extremely so, probably more so than the other forms of radiation

*What is the temporal relationship between exposure to ionizing radiation and subsequent cataract development?*

# Q/A

## Cataracts Associated with Trauma or Radiation



- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*

During an X-ray

*How sensitive is the lens to ionizing radiation?*

Extremely so, probably more so than the other forms of radiation

*What is the temporal relationship between exposure to ionizing radiation and subsequent cataract development?*

Delays of up to 20 d/w/m/yr would not be unusual



# A

## Cataracts Associated with Trauma or Radiation

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

**Ionizing: Most definitely**

*In what situation is one most likely to be exposed to ionizing radiation?*

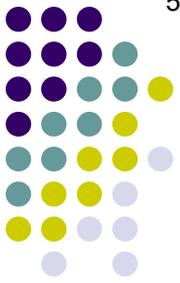
During an X-ray

*How sensitive is the lens to ionizing radiation?*

Extremely so, probably more so than the other forms of radiation

*What is the temporal relationship between exposure to ionizing radiation and subsequent cataract development?*

Delays of up to 20 years would not be unusual



# Q

## Cataracts Associated with Trauma or Radiation

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

**Charged particle: Yes**

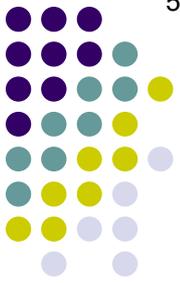
*In what situation is the lens most likely to be exposed to charged-particle radiation?*

UV: Maybe

Microwave: Eh

# Q/A

## Cataracts Associated with Trauma or Radiation



- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

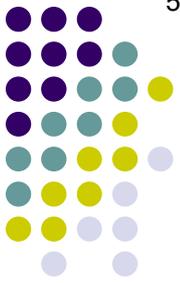
Ionizing: Most definitely

**Charged particle: Yes**

*In what situation is the lens most likely to be exposed to charged-particle radiation?*  
During treatment for a

UV: Maybe

Microwave: Eh



# A

## Cataracts Associated with Trauma or Radiation

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

**Charged particle: Yes**

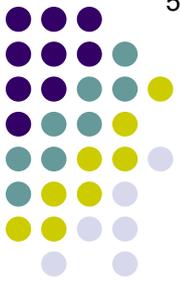
*In what situation is the lens most likely to be exposed to charged-particle radiation?*  
During treatment for a choroidal melanoma

UV: Maybe

Microwave: Eh

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

# A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?*

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

# A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

Ionizing: Most definitely

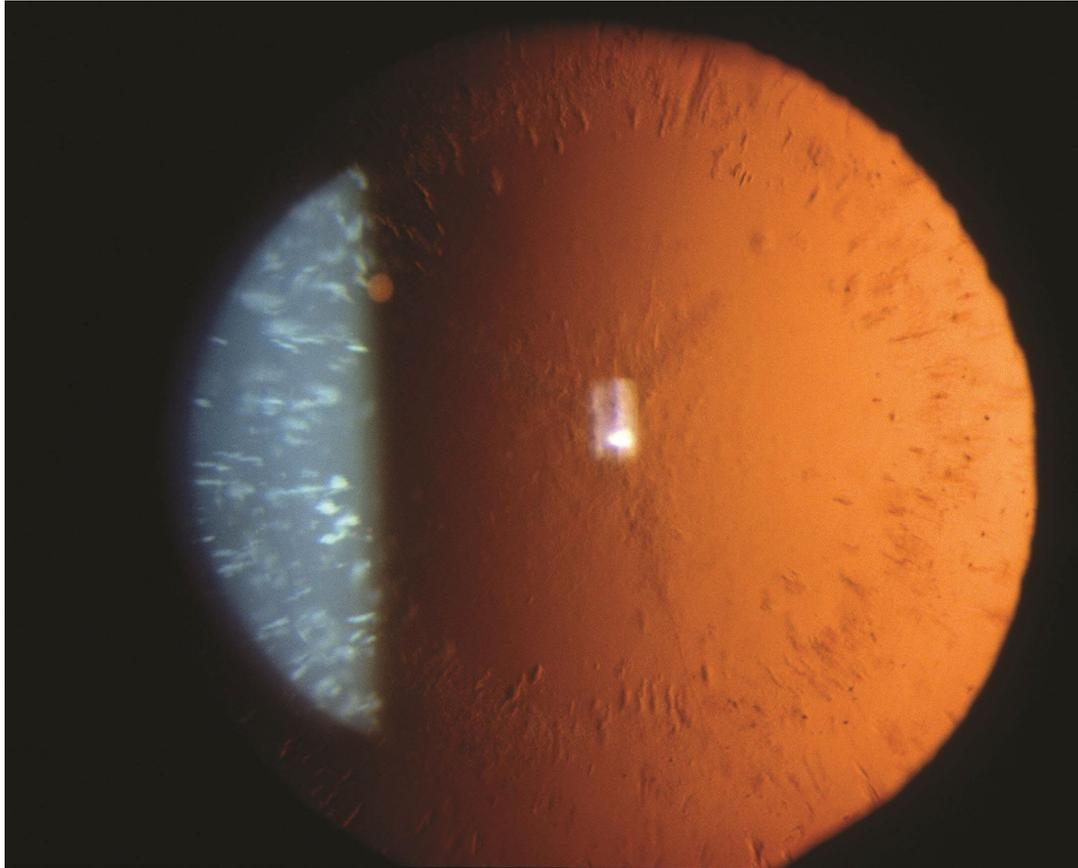
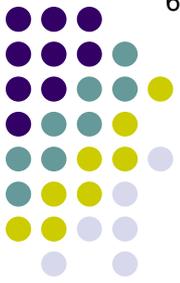
Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

## Cataracts Associated with Trauma or Radiation



Glassblower's cataract

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related*  
**'Glassblower's cataract'**

*What sort of cataract (ie, nuclear; cortical; etc)  
is a glassblower's cataract?*

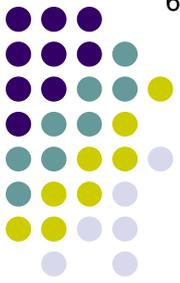
Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh



# A

## Cataracts Associated with Trauma or Radiation

*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related*  
**'Glassblower's cataract'**

*What sort of cataract (ie, nuclear; cortical; etc)  
is a glassblower's cataract?*  
Cortical

Ionizing: Most definitely

Charged particle: Yes

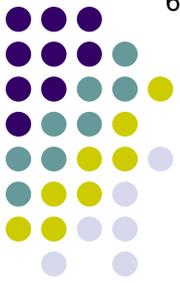
**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

## Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

Ionizing: Most definitely

Charged particle: Yes

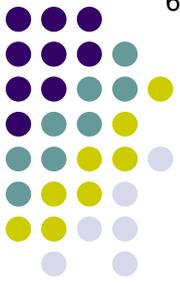
**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

# A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause the outer layer of the anterior capsule to peel in a scroll-like manner

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

*What is the name for this process?*

## A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

**Infrared: Yeah, but...**

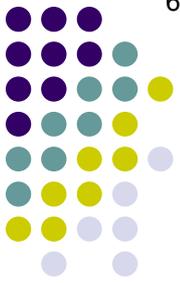
UV: Maybe

Microwave: Eh

*What is the name for this process?*

'Exfoliation'

## Cataracts Associated with Trauma or Radiation



Exfoliation

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

*What is the name for this process?*

**'Exfoliation'**

*'Exfoliation'? Isn't it called pseudoexfoliation?*

# A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

*What is the name for this process?*

**'Exfoliation'**

'Exfoliation'? Isn't it called **pseudoexfoliation**?

While they share some superficial similarities vis a vis appearance, *pseudoexfoliation* (syndrome, PXS) is a different, unrelated condition

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

*What is the name for this process?*

**'Exfoliation'**

'Exfoliation'? *Isn't it called pseudoexfoliation?*

While they share some superficial similarities vis a vis appearance, *pseudoexfoliation* (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does **not** result from a process intrinsic to the capsule itself; rather, this material is created elsewhere and *deposits* on the capsule surface (one of a number of intraocular locations on which deposits occur).

## A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?*

If one works in a foundry

*By what occupation-related name is this sort of cataract known?*

'Glassblower's cataract'

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

It can cause **the outer layer of the anterior capsule to peel in a scroll-like manner**

Ionizing: Most definitely

Charged particle: Yes

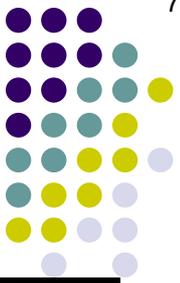
*What is the name for this process?*

**'Exfoliation'**

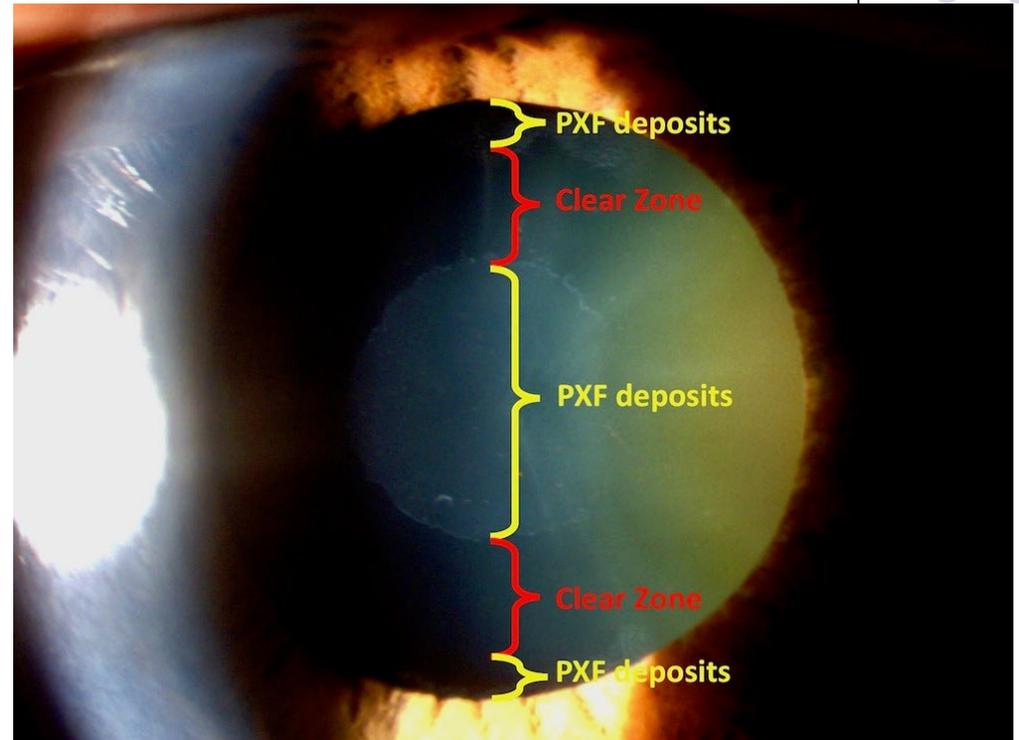
'Exfoliation'? Isn't it called **pseudoexfoliation**?

While they share some superficial similarities vis a vis appearance, *pseudoexfoliation* (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does **not** result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and *deposits* on the capsule surface (one of a number of intraocular locations on which deposits occur).

## Cataracts Associated with Trauma or Radiation



The exfoliation pic from a few slides ago

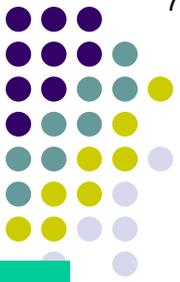


*Pseudoexfoliation* (syndrome). Fibrillar material deposits on the lens' capsule, where normal dilatory/constrictive pupil movements wipe some off to produce a material-free clear zone, resulting in the classic 'target' appearance.

Exfoliation vs pseudoexfoliation

## Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*It can cause a scroll-like appearance in a scroll-like manner*

*Is PXS associated with an increased risk of cataract a la exfoliation and glassblower's cataract?*

*What is the mechanism for this process?*

'Exfoliation'

While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

**PXS**

## A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*It can cause a scroll-like appearance in a scroll-like manner*

*Is PXS associated with an increased risk of cataract a la exfoliation and glassblower's cataract?*

*Yes (although the cataract isn't necessarily cortical in type)*

*What is the mechanism for this process?*

'Exfoliation'

While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

**PXS**

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*It can cause a scroll-like change to the lens.*

*Is PXS associated with an increased risk of cataract a lamellar exfoliation and glassblower's cataract?*

*Yes (although the cataract isn't necessarily cortical in type)*

*Does PXS have any other ocular associations of note?*

*Yes, it is associated with a scroll-like appearance for this process?*

*'Exfoliation'*

*While they share some superficial similarities via a visual appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).*

**PXS**



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*It can cause a scroll-like appearance in a scroll-like manner*

*Is PXS associated with an increased risk of cataract a lamellar exfoliation and glassblower's cataract?*

*Yes (although the cataract isn't necessarily cortical in type)*

*Does PXS have any other ocular associations of note?*

*Yes, PXS pts are at increased risk of*

*'Exfoliation'*

*While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).*

**PXS**

## A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*It can cause a scroll-like appearance in a scroll-like manner*

*Is PXS associated with an increased risk of cataract a lamellar exfoliation and glassblower's cataract?*

*Yes (although the cataract isn't necessarily cortical in type)*

*Does PXS have any other ocular associations of note?*

*Yes, PXS pts are at increased risk of glaucoma*

*'Exfoliation'*

While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

**PXS**

# Q

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*Is PXS associated with an increased risk of cataract a lamellar or cortical in a scroll-like manner  
exfoliation and glassblower's cataract?*

*Yes (although the cataract isn't necessarily cortical in type)*

*Does PXS have any other ocular associations of note?*

*Yes, PXS pts are at increased risk of glaucoma, as well as intra- and post-op surgery complications*

'Exfoliation'

While they share some superficial similarities via a visual appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

**PXS**

# A

## Cataracts Associated with Trauma or Radiation



*In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry*

*By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'*

*Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?*

*Is PXS associated with an increased risk of cataract a lamellar cataract or a scroll-like manner*

*Yes (although the cataract isn't necessarily cortical in type)*

*Does PXS have any other ocular associations of note?*

*Yes, PXS pts are at increased risk of glaucoma, as well as intra- and post-op cataract surgery complications*

'Exfoliation'

While they share some superficial similarities via a visual appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

**PXS**

## Q

## Cataracts Associated with Trauma or Radiation



In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry

By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'

Prior to the intense infrared radiation, the lens is exposed to intense infrared radiation in a scroll-like manner

Are they at risk for open, or closed-angle glaucoma?

Yes, PXS pts are at increased risk of **glaucoma**, as well as intra- and post-op cataract surgery complications

While they share some superficial similarities with a vitreous appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In **PXS**, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

## A

## Cataracts Associated with Trauma or Radiation



In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry

By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'

Prior to the intense infrared radiation, the lens is in a scroll-like manner

Are they at risk for open, or closed-angle glaucoma?  
Open

Yes, PXS pts are at increased risk of glaucoma, as well as intra- and post-op cataract surgery complications. While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

## Q

## Cataracts Associated with Trauma or Radiation



In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry

By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'

Prior to the intense infrared radiation, the lens is exposed to intense infrared radiation in a scroll-like manner

Are they at risk for open, or closed-angle glaucoma?  
Open

Is it primary OAG (POAG), or 2ndry OAG?

Yes, PXS pts are at increased risk of **glaucoma**, as well as intra- and post-op cataract surgery complications. While they share some superficial similarities vis a vis appearance, pseudoexfoliation (syndrome, PXS) is a different, unrelated condition. In **PXS**, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).

## A

## Cataracts Associated with Trauma or Radiation



In what situation is one most likely to be exposed to infrared radiation?  
If one works in a foundry

By what occupation-related name is this sort of cataract known?  
'Glassblower's cataract'

Prior to the intense infrared radiation, the lens is exposed to intense infrared radiation in a scroll-like manner

Are they at risk for open, or closed-angle glaucoma?

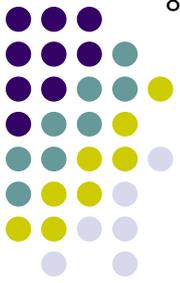
Open

Is it primary OAG (POAG), or 2ndry OAG?

2ndry of course—by definition, POAG has no associations of this sort (that's what it means for a condition to be 'primary')

Yes, PXS pts are at increased risk of **glaucoma**, as well as intra- and post-op cataract surgery complications

'Exfoliation syndrome' (PXS) is a different, unrelated condition. In PXS, the material on the anterior capsule does not result from a process intrinsic to the capsule itself; rather, this fibrillar material is created elsewhere and deposits on the capsule surface (one of a number of intraocular locations on which deposits occur).



# Q

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

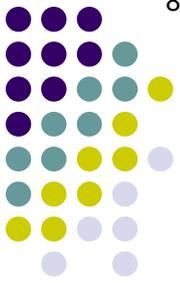
Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

*What's with the 'Yeah, but...?'*



# A

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

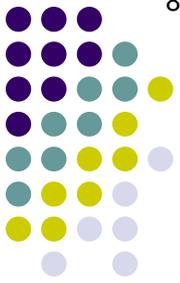
Charged particle: Yes

**Infrared: Yeah, but...**

UV: Maybe

Microwave: Eh

*What's with the 'Yeah, but...'?  
This sort of cataract has become quite rare (to put it mildly)*



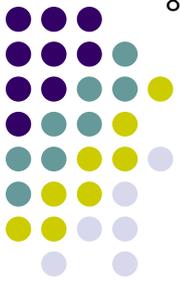
# Q

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

*In what situation is one most likely to be exposed to UV radiation?*

**UV: Maybe**

Microwave: Eh



# A

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

*In what situation is one most likely to be exposed to UV radiation?*  
Being outside, during the daytime

**UV: Maybe**

Microwave: Eh



# Q

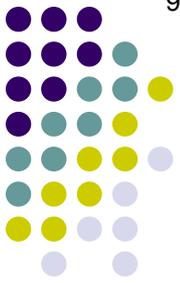
- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

*In what situation is one most likely to be exposed to UV radiation?  
Being outside, during the daytime*

*Other than becoming a vampire, what can be done to avoid exposing the lens to UV radiation?*

**UV: Maybe**

Microwave: Eh



# A

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

*In what situation is one most likely to be exposed to UV radiation?*  
Being outside, during the daytime

*Other than becoming a vampire, what can be done to avoid exposing the lens to UV radiation?*  
Wear UV-blocking sunglasses, and/or a hat with a visor

**UV: Maybe**

Microwave: Eh



# Q

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

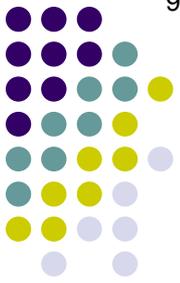
*In what situation is one most likely to be exposed to UV radiation?*  
Being outside, during the daytime

*Other than becoming a vampire, what can be done to avoid exposing the lens to UV radiation?*  
Wear UV-blocking sunglasses, and/or a hat with a visor

**UV: Maybe**

*What's with the 'Maybe'?*

Microwave: En



# A

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

*In what situation is one most likely to be exposed to UV radiation?*  
Being outside, during the daytime

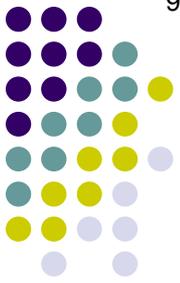
*Other than becoming a vampire, what can be done to avoid exposing the lens to UV radiation?*  
Wear UV-blocking sunglasses, and/or a hat with a visor

**UV: Maybe**

Microwave: En

*What's with the 'Maybe'?*

It's estimated that UV radiation only accounts for about 10% of the risk for developing a cataract



# Q

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

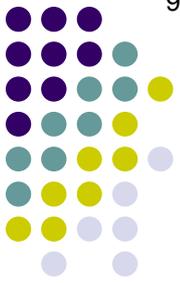
Charged particle: Yes

Infrared: Yeah, but...

UV: Maybe

**Microwave: Eh**

*What's with the 'Eh'?*



# A

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?

Ionizing: Most definitely

Charged particle: Yes

Infrared: Yeah, but...

UV: Maybe

**Microwave: Eh**

*What's with the 'Eh'?*

While microwaves have been demonstrated to cause cataracts in animal models, the evidence of an effect on humans is far from conclusive