What does the term Entropion mean?
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It means the eyelid margin is turning **inward**
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What does the term **Ectropion** mean?
It means the eyelid margin is turning **outward**
The Plastics book identifies six general causes of entropion and/or ectropion. What are they? (Note that while most apply to both entropion and ectropion, a few apply only to one or the other.)
The Plastics book identifies six general causes of entropion and/or ectropion. What are they? (Note that while most apply to both entropion and ectropion, a few apply only to one or the other.)

**Entropion Categories**

Congenital

Involutional

Paralytic

Cicatricial

Mechanical

Acute Spastic

**Ectropion**
Of the six, which can result in entropion?

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Of the six, which can result in entropion? Spastic Entropion
Of the six, which can result in ectropion?

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**Let's take a closer look at spastic entropion…**
What is the ‘vicious cycle’ of spastic entropion?

Leads to...

Leads to...

Leads to...
What is the ‘vicious cycle’ of spastic entropion?

- Sustained orbicularis contraction
- Inward rotation of the lid margin
- Spastic Entropion

Leads to…

Leads to…

Leads to…

Inward rotation of the lid margin
What is the ‘vicious cycle’ of spastic entropion?

- Sustained orbicularis contraction
- Ocular surface irritation
- Inward rotation of the lid margin

Leads to...
What is the ‘vicious cycle’ of spastic entropion?

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Leads to…

Spastic Entropion
Who is the classic spastic entropion pt?

- Sustained orbicularis contraction
- Inward rotation of the lid margin
- Ocular surface irritation

Leads to...

Q
Who is the classic spastic entropion pt?
An elderly individual s/p recent intraocular surgery

- Sustained orbicularis contraction
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Who is the classic spastic entropion pt?
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Why does being s/p intraocular surgery put them at risk?
It produces ocular irritation which can kickstart the cycle
Who is the classic spastic entropion pt?
An elderly individual s/p recent intraocular surgery

Leads to...
Sustained orbicularis contraction

Ocular surface irritation

Why does being s/p intraocular surgery put them at risk?
It produces ocular irritation which can kickstart the cycle

Leads to...
Inward rotation of the lid margin
An interesting aside: Spastic entropion precipitated by a corneal ulcer
Who is the classic spastic entropion pt?
An elderly individual s/p recent intraocular surgery

Spastic Entropion

- Sustained orbicularis contraction
- Inward rotation of the lid margin
- Ocular surface irritation

Why are the elderly predisposed to acute spastic entropion?
Who is the classic spastic entropion pt?
An elderly individual s/p recent intraocular surgery

Why are the elderly predisposed to acute spastic entropion?
Because of the involutional changes that are inevitably present in these pts—changes that make possible the inturning of the lid margin
Who is the classic spastic entropion pt?

An elderly individual s/p recent intraocular surgery

- Sustained orbicularis contraction
- Inward rotation of the lid margin
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Why are the elderly predisposed to acute spastic entropion?

Because of the involutional changes that make possible the inturning.

What are the involutional changes that place elderly pts at risk for spastic entropion?
Who is the classic spastic entropion pt?
An **elderly individual** s/p recent intraocular surgery.

Why are the elderly predisposed to acute spastic entropion?
Because of the **involutional changes** that are inevitably present in these pts—
- Horizontal lid laxity
- Dis-insertion of the eyelid retractors from the lower border of the tarsal plate
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**Spastic Entropion**

- Sustained orbicularis contraction
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Ocular surface irritation

Inward rotation of the lid margin

Spastic Entropion
Who is the classic spastic entropion pt?
An elderly individual s/p recent intraocular surgery

Sustained orbicularis contraction

For more on these involutional changes and how they relate to lid malposition, see slide-set O6

Inward rotation of the lid margin

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Spastic Entropion

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To treat acute spastic entropion...
Sustained orbicularis contraction

Ocular surface irritation

Inward rotation of the lid margin

To treat acute spastic entropion... *Break the cycle!*
What *nonsurgical* counter-rotation technique could you consider?

- **Spastic Entropion**

  - **Q**

  - **Ocular surface irritation**
    - Leads to...
  - **Inward rotation of the lid margin**
    - Leads to...
  - **Sustained orbicularis contraction**
    - Leads to...
What *nonsurgical* counter-rotation technique could you consider? **Lid taping**

- **Spastic Entropion**
  - Sustained orbicularis contraction
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A
What three **surgical** counter-rotation techniques could you consider?
What three **surgical** counter-rotation techniques could you consider? Botox; Quickert sutures; cautery

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Leads to...

Spastic Entropion
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A suturing technique that everts an entropic lid

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The pass starts just below the lash line traveling down and posterior, passing in front of and then below the tarsal plate. It comes out on the conj surface shortly before the inferior fornix.

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Spastic Entropion

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**How many throws are placed?**

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How many throws are placed?
Usually three

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**Does the Quickert procedure work well?**
What three **surgical** counter-rotation techniques could you consider? Botox; **Quickert sutures**; cautery

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Quickert sutures re-insert the *lower-lid retractors* onto the *tarsal plate*

*Does the Quickert procedure work well? Yes, very*
Q

- What three surgical counter-rotation techniques could you consider? Botox; **Quickert sutures**; cautery

In a nutshell, how does the Quickert procedure work? What does it do? Quickert sutures re-insert the **lower-lid retractors** onto the **tarsal plate**.

Does the Quickert procedure work well? Yes, very much.

Does it have any drawbacks? Yes, there are some minor complications.
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Does it have any drawbacks? Yes—it is a temporizing measure; it fails eventually.
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**Spastic Entropion**

- Sustained orbicularis contraction
- Ocular surface irritation
- Inward rotation of the lid margin

Why do Quikert sutures fail? Because they don’t definitively address the underlying involutional changes that put the ptat risk for spastic entropion in the first place.
What three **surgical** counter-rotation techniques could you consider? Botox; **Quickert sutures**; cautery

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Remind me again—what are the three involutional changes that put pts at risk?
- Lid laxity: Tightening procedure, eg, lateral tarsal strip
- Inserted retractors: Permanent re-attachment
- Due to age-related loss of orbital fat: Tough to treat

Why do Quikert sutures fail? Because they don’t definitively address the underlying involutional changes that put the pt at risk for spastic entropion in the first place.

What three surgical counter-rotation techniques could you consider? Botox; Quickert sutures; cautery.
**Spastic Entropion**

**Sustained orbicularis contraction**

Ocular surface irritation

**Inward rotation of the lid margin**

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**Remind me again—what are the three involutional changes that put pts at risk?**

-- Horizontal lid laxity
-- Dis-inserted retractors
-- Enophthalmos due to age-related loss of orbital fat

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**What three surgical counter-rotation techniques could you consider?** Botox; Quickert sutures; cautery
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Sustained orbicularis contraction

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Ocular surface irritation

Sustained orbicularis contraction

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Leads to…

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- **Spastic Entropion**
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Ocular surface irritation

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Leads to...
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Let's take a closer look at these interventions

Sustained orbicularis contraction

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Leads to...

Leads to...

Let's take a closer look at these interventions
Many surgical approaches to involutional lid changes have been developed. However, the most effective approaches address the same two therapeutic goals:

1)

2)
Many surgical approaches to involutional lid changes have been developed. However, the most effective approaches address the same two therapeutic goals:

1) Surgical maneuver to address laxity
2)
Many surgical approaches to involutional lid changes have been developed. However, the most effective approaches address the same two therapeutic goals:

1) **Horizontal lid tightening** to address laxity
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**Lateral tarsal strip procedure.** A, Lateral stretching of the eyelid demonstrates the potential of lower lid tightening. (Note: The is pt has *ectropion*, not *entropion*.)
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**Lateral tarsal strip procedure.**

A, Lateral stretching of the eyelid demonstrates the potential of lower lid tightening. (Note: The is pt has *ectropion*, not entropion.)

B, Lateral tarsal strip procedure: anchoring of tarsal strip to periosteum inside the lateral orbital rim.
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**What structures comprise each lamella?**

*Anterior:*

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Anterior:
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As an important aside: Does the eyelid possess a middle lamella?

Yes--both upper and lower lids are conceptualized as possessing a middle lamella. However, the middle lamellae are composed of structures only found beyond the non-marginal edge of the tarsal plate (ie, superior to the upper plate, and inferior to the lower).

Thus, at the location of the tarsal plate (as discussed here), there is no middle lamella.

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