There are four corneal iron lines. Name them.

1) ?
2) ?
3) ?
4) ?
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

In which corneal layer are these lines located?
There are four **corneal iron lines**. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

In which corneal layer are these lines located? The epithelium
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

Which slit-lamp illumination settings render iron lines most readily visible?
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

Which slit-lamp illumination settings render iron lines most readily visible?
Either __two words__ or __two other words__
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

Which slit-lamp illumination settings render iron lines most readily visible? Either cobalt blue or red-free.
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

Does fluorescein dye improve iron-line visibility?
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

Does fluorescein dye improve iron-line visibility? No--just the opposite. If you’re looking for an iron line, it’s best to look before instilling fluorescein.
There are four corneal iron lines. Name them. With what condition are they associated?

1) **Stocker line** is associated with...

   - ?

2) Fleischer line (ring)

3) Ferry line

4) Hudson-Stähli line
There are four **corneal iron lines**. Name them. *With what condition are they associated?*

1) **Stocker line** is associated with...
   - Pterygium

2) Fleischer line (ring)

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) **Stocker line** is associated with...
   - Pterygium

With respect to its associated pterygium, where is the Stocker line found?

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...
   - Pterygium

With respect to its associated pterygium, where is the Stocker line found? Just anterior to the leading edge of the pterygium

4) Hudson-Stähli line
Corneal Iron Lines

Stocker line
There are four corneal iron lines. Name them. With what condition are they associated?

1) **Stocker line** is associated with...
   - Pterygium

With respect to its associated pterygium, where is the Stocker line found?
Just anterior to the leading edge of the pterygium

Is the presence of a Stocker line an indication for pterygium removal?

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) **Stocker line** is associated with...
   - Pterygium

*With respect to its associated pterygium, where is the Stocker line found?* Just anterior to the leading edge of the pterygium

*Is the presence of a Stocker line an indication for pterygium removal?* No—just the opposite. A Stocker line forms when the pterygium is stable; i.e., it indicates a lack of growth.

4) Hudson-Stähli line
● There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- Pterygium

In one word, what sort of condition is pterygium?
A [fibrovascular degeneration]

elastoid (or elastoic) fibrovascular degeneration
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- **Pterygium**

In one word, what sort of condition is pterygium?
A degeneration
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- Pterygium

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A elastoid (or elastoic) degeneration
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

**Pterygium**

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- **Pterygium**

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration

In one word, what sort of fibrovascular degeneration is it?
An elastoid (or elastoic) fibrovascular degeneration
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- Pterygium

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration

In one word, what sort of fibrovascular degeneration is it?
An elastoid (or elastoic) fibrovascular degeneration
There are four corneal iron lines. Name them.
With what condition are they associated?

1) Stocker line is associated with...
   - Pterygium

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration

In one word, what sort of fibrovascular degeneration is it?
An elastoid (or elastoic) fibrovascular degeneration

What does it mean to say a degeneration is ‘elastoid/elastotic’?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...

- **Pterygium**

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration

In one word, what sort of fibrovascular degeneration is it?
An **elastoid (or elastotic)** fibrovascular degeneration

What does it mean to say a degeneration is ‘elastoid/elastotic’?
The collagen fibers in pterygia stain with elastin, just like true elastic tissue. However, the fibers are insensitive to the enzyme elastase. Thus the fibers are not truly elastic tissue—hence the terms elastoid/elastotic.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with...[Ptterygium]

In one word, what sort of condition is pterygium?
A degeneration

In one word, what sort of degeneration is it?
A fibrovascular degeneration

In one word, what sort of fibrovascular degeneration is it?
An elastoid (or elastoic) fibrovascular degeneration

What does it mean to say a degeneration is ‘elastoid/elastotic’?
The collagen fibers in pterygia stain with elastin, just like true elastic tissue. However, the fibers are insensitive to the enzyme elastase. Thus the fibers are not truly elastic tissue—hence the terms elastoid/elastotic.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with **Stocker line**
2) Fleischer line (ring) is associated with **Fleischer line**
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with **Pterygium**
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
--Age
--UV exposure
--Geographic location
--Gender
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line is associated with ___________.
2) Fleischer line (ring) is associated with ___________.
3) Ferry line is associated with ___________.
4) Hudson-Stähli line is associated with ___________.

What are the four risk factors for pterygia?
1) Age
2) UV exposure
3) Geographic location
4) Gender

What age group is at risk for pterygia?
Young adults, 20-30 years old
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

What age group is at risk?
Young adults, 20-30 years old
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?

- Age
- UV exposure
- Geographic location
- Gender

What does this imply about vocation as a risk factor?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

What does this imply about vocation as a risk factor?
It implies (correctly) that individuals who work outdoors are at greater risk.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

What is the rule-of-thumb regarding geographic location and pterygium risk?
- The closer one lives to the equator, the greater the risk.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

What is the rule-of-thumb regarding geographic location and pterygium risk?
The closer one lives to the equator, the greater the risk.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
--Age
--UV exposure
--Geographic location

What is the rule-of-thumb regarding geographic location and pterygium risk? The closer one lives to the equator, the greater the risk.
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

Which gender is at greater risk?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

What are the four main risk factors for pterygia?
- Age
- UV exposure
- Geographic location
- Gender

Which gender is at greater risk?
Male
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium

2) Fleischer line (ring) is associated with...
   - ?

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring) is associated with...
   - Keratoconus
3) Ferry line
4) Hudson-Stähli line
There are four corneal iron lines. Name them:

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located?

- At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?

- Switching to the cobalt-blue light

2) Fleischer line (ring) is associated with...

- Keratoconus

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located?
At its base

2) **Fleischer line (ring)** is associated with...
   - **Keratoconus**

3) Ferry line

4) Hudson-Stähli line
Corneal Iron Lines

Fleischer ring/line
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located?
- At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?
- Switching to the cobalt-blue light is associated with…

2) **Fleischer line (ring)** is associated with...
   - **Keratoconus**

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located?
At its base

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Switching to the cobalt-blue light

2) **Fleischer line (ring)** is associated with...

- **Keratoconus**

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them.

1) Stocker line
2) Fleischer line (ring)
3) Ferry line
4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located? At its base.

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it? Switching to the cobalt-blue light is associated with...

In one word, what sort of condition is keratoconus (KCN)?
An ectasia
It is inflammatory, or noninflammatory? Noninflammatory

What does corneal topography reveal about the typical dz course in KCN?
The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly? Adolescence

2) Fleischer line (ring) is associated with...
   - Keratoconus
3) Ferry line
4) Hudson-Stähli line
In one word, what sort of condition is keratoconus (KCN)?

An **ectasia**

2) **Fleischer line (ring)** is associated with...

   ● **Keratoconus**

3) Ferry line

4) Hudson-Stähli line
In one word, what sort of condition is keratoconus (KCN)?

An ectasia

It is inflammatory, or noninflammatory?

With respect to the cone, where is the Fleischer line located?

At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?

Switching to the cobalt-blue light

In one word, what sort of condition is keratoconus (KCN)?

An ectasia

It is inflammatory, or noninflammatory?

2) Fleischer line (ring) is associated with...

- Keratoconus

3) Ferry line

4) Hudson-Stähli line
Corneal Iron Lines

1) Stocker line
   - Pterygium

2) Fleischer line (ring)
   - Keratoconus

3) Ferry line

4) Hudson-Stähli line

In one word, what sort of condition is keratoconus (KCN)?
An ectasia

It is inflammatory, or noninflammatory?
Noninflammatory

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At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?
Switching to the cobalt-blue light is associated with...

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The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly?
Adolescence
There are four corneal iron lines. Name them.

1) **Stocker line**
   - Pterygium

2) **Fleischer line (ring)**
   - Keratoconus

3) **Ferry line**

4) **Hudson-Stähli line**

With respect to the cone, where is the Fleischer line located?
- At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?
- Switching to the cobalt-blue light

In one word, what sort of condition is keratoconus (KCN)?
- An *ectasia*

It is inflammatory, or noninflammatory?
- Noninflammatory

What does corneal topography reveal about the typical dz course in KCN?
- The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly?
- Adolescence
There are four corneal iron lines. Name them.

1) Stocker line
   - Pterygium

2) Fleischer line (ring)
   - Keratoconus

3) Ferry line

4) Hudson-Stähli line

With respect to the cone, where is the Fleischer line located?
At its base

The Fleischer line can be difficult to spot. What simple slit-lamp adjustment can help reveal it?
Switching to the cobalt-blue light is associated with...

In one word, what sort of condition is keratoconus (KCN)?
An ectasia

It is inflammatory, or noninflammatory?
Noninflammatory

What does corneal topography reveal about the typical dz course in KCN?
The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly?
Adolescence
In one word, what sort of condition is keratoconus (KCN)?
An **ectasia**

It is inflammatory, or noninflammatory?
Noninflammatory

What does corneal topography reveal about the typical dz course in KCN?
The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly?
Adolescence

2) **Fleischer line (ring)** is associated with...
   - **Keratoconus**

3) Ferry line

4) Hudson-Stähli line
Corneal Iron Lines

1) Stocker line
   Pterygium

2) Fleischer line (ring)
   Keratoconus

3) Ferry line

4) Hudson-Stähli line

Evidence of iron deposition in the cornea. Corneal iron lines.

In one word, what sort of condition is keratoconus (KCN)?
An ectasia

It is inflammatory, or noninflammatory?
Noninflammatory

What does corneal topography reveal about the typical dz course in KCN?
The central and/or paracentral cornea thins progressively, producing a cone-like bulge. Extreme irregular astigmatism eventually results.

During what period of life does the dz tend to progress most rapidly?
Adolescence

2) Fleischer line (ring) is associated with... 
   Keratoconus

3) Ferry line

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line is associated with...
   - ?
4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium

2) Fleischer line (ring)
   - Keratoconus

3) Ferry line is associated with...
   - Filtering bleb

4) Hudson-Stähli line
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line is associated with...
   - Filtering bleb
4) Hudson-Stähli line

With respect to the bleb, where is the Ferry line located?
● There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   ● Pterygium
2) Fleischer line (ring)
   ● Keratoconus
3) **Ferry line** is associated with...
   ● Filtering bleb
4) Hudson-Stähli line

*With respect to the bleb, where is the Ferry line located? Anterior to it*
Corneal Iron Lines

Ferry line
There are four corneal iron lines. Name them.

With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line
   - Filtering bleb
4) Hudson-Stähli line is associated with...
   - ?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line
   - Filtering bleb
4) Hudson-Stähli line is associated with...
   - Normal and common finding in the elderly
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line
   - Filtering bleb
4) Hudson-Stähli line is associated with...
   - Normal and common finding in the elderly

Where is the Hudson-Stähli line located?
There are four corneal iron lines. Name them. With what condition are they associated?

1) Stocker line
   - Pterygium
2) Fleischer line (ring)
   - Keratoconus
3) Ferry line
   - Filtering bleb
4) **Hudson-Stähli line** is associated with...
   - Normal and common finding in the elderly

Where is the Hudson-Stähli line located?
At the junction of the lower- and middle-thirds of the cornea
Corneal Iron Lines

Hudson-Stähli line