Cataracts associated with blunt trauma are often stellate or rosette initially, but may progress to type/configuration or type/configuration.
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Can blunt-trauma-induced cataract resolve spontaneously?
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Can blunt-trauma-induced cataract resolve spontaneously?
It can—albeit only rarely, and only if the trauma was mild.
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?

A. Vossius ring
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?  
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Is a Vossius ring visually significant in and of itself?
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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.
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*Why is that?*
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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-operative complications.
Cataracts associated with blunt trauma are often stellate or rosette initially, but may progress to total opacification.

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

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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

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

Phacodonesis

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

Iridodonesis

*Is it also associated with lens subluxation secondary to blunt ocular trauma?*

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To what does the term phacodonesis refer?
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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?

**Phacodonesis**

To what does the term phacodonesis refer?

- A visible tremulousness of the lens in response to eye movements
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Is exposure to radiation associated with cataract formation?
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Which of the following forms of radiation cause cataracts?

- Ionizing:
- Charged particle:
- Infrared:
- UV:
- Microwave:
Q/A

- Is exposure to radiation associated with cataract formation? **Yes**
- Which of the following forms of radiation cause cataracts?
  - Ionizing: **Most definitely**
  - Charged particle:
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In what situation is one most likely to be exposed to ionizing radiation?
- Is exposure to radiation associated with cataract formation? Yes

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

What is the temporal relationship between exposure to ionizing radiation and subsequent cataract development?
Delays of up to 20 years would not be unusual
Is exposure to radiation associated with cataract formation? Yes

Which of the following forms of radiation cause cataracts?

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In what situation is one most likely to be exposed to ionizing radiation? 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)
Is exposure to radiation associated with cataract formation? Yes

Which of the following forms of radiation cause cataracts?

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- UV: Maybe
- Microwave: Eh

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

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Q/A

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- Microwave: Eh

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

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- Which of the following forms of radiation cause cataracts?
  - Ionizing: Most definitely
  - Charged particle: Yes
  - Infrared: Yeah, but...
  - UV: Maybe
  - Microwave: Eh

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

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

During treatment for a choroidal melanoma
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
In what situation is one most likely to be exposed to infrared radiation?
If one works in a foundry

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In what situation is one most likely to be exposed to infrared radiation?
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By what occupation-related name is this sort of cataract known?

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In what situation is one most likely to be exposed to infrared radiation?
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By what occupation-related name is this sort of cataract known?
‘Glassblower’s cataract’

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By what occupation-related name is this sort of cataract known?
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Prior to the development of a cataract, chronic exposure to intense infrared radiation can cause what striking change to the lens?

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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 off in a scroll-like manner

Ionizing: Most definitely
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What is the name for this process?
Exfoliation

Ionizing: Most definitely
Charged particle: Yes
Infrared: Yeah, but...
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Is exposure to radiation associated with cataract formation? Yes

Which of the following forms of radiation cause cataracts?
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What is the name for this process?
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Ah—so this is the same process that occurs in pseudoexfoliation syndrome (PXS)?

Ionizing: Most definitely
Charged particle: Yeah, but...
Infrared: ,UV: Maybe
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In what situation is one most likely to be exposed to infrared radiation?
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What is the name for this process?
‘Exfoliation’

Ah—so this is the same process that occurs in pseudoexfoliation syndrome (PXS)?
Not really. The fibrillar material in PXS is not actually exfoliated—hence the name, pseudoexfoliation. In contrast, infrared radiation exposure causes true exfoliation.

Ionizing: Most definitely
Charged particle: Yes
Infrared: Yeah, but...
UV: Maybe
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Q

- Is exposure to radiation associated with cataract formation? Yes
- Which of the following forms of radiation cause cataracts?
  Ionizing: Most definitely
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What's with the ‘Yeah, but…’?
● Is exposure to radiation associated with cataract formation? Yes
● Which of the following forms of radiation cause cataracts?
  Ionizing: Most definitely
  Charged particle: Yes
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*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?
  - Ionizing: Most definitely
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  - Infrared: Yeah, but...
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  - Microwave: Eh

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

**UV:** Maybe

Microwave: Eh
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

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?
  - Ionizing: Most definitely
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  - UV: Maybe
  - Microwave: Eh

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

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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

What's with the ‘Maybe’?

UV: Maybe
Microwave: Eh
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

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

What’s with the ‘Maybe’?
It’s estimated that UV radiation only accounts for about 10% of the risk for developing a cataract
Is exposure to radiation associated with cataract formation? Yes

Which of the following forms of radiation cause cataracts?

- Ionizing: Most definitely
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What's with the 'Eh'?
Is exposure to radiation associated with cataract formation? Yes

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- 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.