Q

Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2)

(number of answers)
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) *Aluminum; zinc*
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) *Aluminum; zinc*
- Causes chalcosis
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper

A
Match each finding with the appropriate IOFB (some will be used more than once)

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- Causes chalcosis Copper

Pure copper causes chalcosis—a severe inflammatory response that can result in loss of the eye. Late removal of the IOFB may not resolve the chalcosis.
Match each finding with the appropriate IOFB (some will be used more than once)

* Minimal reactivity unless very large (2) Aluminum; zinc
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Pure copper causes acute chalcosis—a severe inflammatory response that can result in loss of the eye. Late removal of the IOFB may not resolve the chalcosis.
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Pure copper causes acute chalcosis—a severe inflammatory response that can result in loss of the eye. Late removal of the IOFB may not resolve the chalcosis. Copper alloys produce chronic chalcosis, a less severe reaction.
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
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Does iron’s affinity for depositing and concentrating in epithelial tissues includes the RPE?
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for **epithelial tissue** Iron

*Does iron’s affinity for depositing and concentrating in epithelial tissues includes the RPE?*
Yes, and this accounts for a significant portion of its effects
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s

Q
Match each finding with the appropriate IOFB (some will be used more than once)

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- Causes chalcosis Copper
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- Minimal reactivity unless very large (2) Aluminum; zinc
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What affect does copper have on Descemet’s?
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper

What affect does copper have on Descemet’s? It turns it a shade of green
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2)  **Aluminum; zinc**
- Causes chalcosis  **Copper**
- Has affinity for epithelial tissue  **Iron**
- Has affinity for Descemet’s  **Copper**
- Causes *siderosis*  **Iron**
Match each finding with the appropriate IOFB (some will be used more than once)
- Minimal reactivity unless very large (2) Aluminum; zinc
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- Has affinity for epithelial tissue Iron
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What is hemosiderosis?
Match each finding with the appropriate IOFB (some will be used more than once)

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- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron

What is hemosiderosis?
The iron-caused discoloration of ocular tissues following an intraocular bleed
Match each finding with the appropriate IOFB (some will be used more than once)

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- Has affinity for epithelial tissue Iron
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What is hemosiderosis?
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What is the cause?
Match each finding with the appropriate IOFB (some will be used more than once)

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What is hemosiderosis?
The iron-caused discoloration of ocular tissues following an intraocular bleed

What is the cause?
The breakdown of RBCs with subsequent release of iron-containing hemoglobin
Q

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  - Causes chalcosis \textit{Copper}
  - Has affinity for epithelial tissue \textit{Iron}
  - Has affinity for Descemet’s \textit{Copper}
  - Causes \textit{siderosis} \textit{Iron}
  - Can affect the iris (2)
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  • Has affinity for Descemet’s  *Copper*
  • Causes *siderosis*  *Iron*
  • Can affect the iris (2)  *Iron; copper*
Match each finding with the appropriate IOFB (some will be used more than once)

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- Causes chalcosis  Copper
- Has affinity for epithelial tissue  Iron
- Has affinity for Descemet’s  Copper
- Causes siderosis  Iron
- Can affect the iris (2)  Iron; copper

What are the effects on the iris of intraocular…
Copper?
Iron?
Q/A

- Match each finding with the appropriate IOFB (some will be used more than once)
  - Minimal reactivity unless very large (2) *Aluminum; zinc*
  - Causes chalcosis *Copper*
  - Has affinity for epithelial tissue *Iron*
  - Has affinity for Descemet’s *Copper*
  - Causes *siderosis* *Iron*
  - Can affect the iris (2) *Iron; copper*

What are the effects on the iris of intraocular…
*Copper?* A greenish discoloration
*Iron?*
Q/A

- Match each finding with the appropriate IOFB (some will be used more than once)
  - Minimal reactivity unless very large (2)  *Aluminum; zinc*
  - Causes chalcosis  *Copper*
  - Has affinity for epithelial tissue  *Iron*
  - Has affinity for Descemet’s  *Copper*
  - Causes *siderosis*  *Iron*
  - **Can affect the iris (2)**  *Iron; copper*

*What are the effects on the iris of intraocular…*  
*Copper? A greenish discoloration*  
*Iron? Two effects deserve mention:*  
--  
--
Q/A

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  - Causes siderosis Iron
  - Can affect the iris (2) Iron; copper

What are the effects on the iris of intraocular…
Copper? A greenish discoloration
Iron? Two effects deserve mention:
--darkening, with subsequent heterochromia iridis (Be sure to ask about a hx of ocular trauma in any pt with heterochromia iridis!)
--iron deposition in the iris dilator and sphincter muscles impairs motility, resulting in a poorly-responsive pupil not unlike an..."
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- Causes chalcosis **Copper**
- Has affinity for epithelial tissue **Iron**
- Has affinity for Descemet’s **Copper**
- Causes *siderosis* **Iron**
- Can affect the iris (2) **Iron; copper**
- Can affect the lens (2)
Match each finding with the appropriate IOFB (some will be used more than once)

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- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper
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- Causes chalcosis Copper
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- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular… Copper?
Iron?
Q/A

- Match each finding with the appropriate IOFB (some will be used more than once)
  - Minimal reactivity unless very large (2) Aluminum; zinc
  - Causes chalcosis Copper
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  - Causes siderosis Iron
  - Can affect the iris (2) Iron; copper
  - Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular… Copper? Causes so-called cataracts Iron?
Match each finding with the appropriate IOFB (some will be used more than once):

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular… Copper? Causes so-called ‘sunflower’ cataracts Iron?
Match each finding with the appropriate IOFB (some will be used more than once)

- Minimal reactivity unless very large (2) Aluminum; zinc
- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular Copper? Causes so-called ‘sunflower’ cataracts

Why the descriptor ‘sunflower’?
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- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
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- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular Copper? Causes so-called ‘sunflower’ cataracts

Why the descriptor ‘sunflower’?
Because of the cataract’s petal-shaped contour, and the fact that it often has a yellow hue
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- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper

What are the effects on the lens of intraocular…
Copper? Causes so-called ‘sunflower’ cataracts
Iron? Brownish discoloration of the lens capsule
Match each finding with the appropriate IOFB (some will be used more than once):
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- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper
- Causes nyctalopia Iron
Match each finding with the appropriate IOFB (some will be used more than once)

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- Causes chalcosis Copper
- Has affinity for epithelial tissue Iron
- Has affinity for Descemet’s Copper
- Causes siderosis Iron
- Can affect the iris (2) Iron; copper
- Can affect the lens (2) Iron; copper
- Causes nyctalopia Iron
- Causes an increase in the a-wave on ERG
Match each finding with the appropriate IOFB (some will be used more than once)

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- Can affect the lens (2) Iron; copper
- Causes nyctalopia Iron
- Causes an increase in the a-wave on ERG Iron

Iron tends to deposit in epithelial tissues, including the RPE. Deposition in the retina and RPE leads to nyctalopia as well as decreased acuity and VF loss. ERG changes are common: The first is an increase in a-wave amplitude, with a normal b-wave. Later the b-wave starts to diminish; late, the ERG becomes extinguished. An iron IOFB can be followed via serial ERG, with removal if the b-wave starts to decrease.