

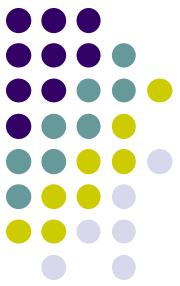
Q

The AREDS

- *ARMD: The AREDS*

- AREDS is the

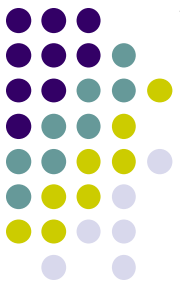
write it out

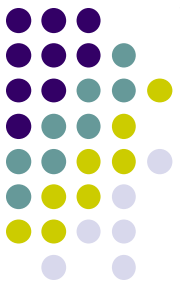


A

The AREDS

- *ARMD: The AREDS*
 - AREDS is the **Age-Related Eye Disease Study**



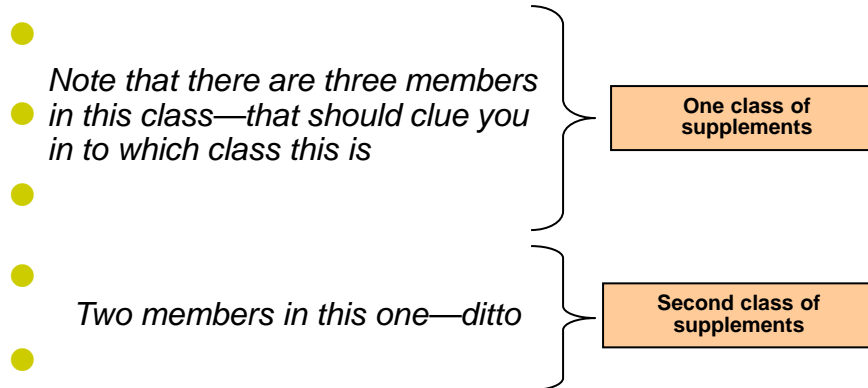


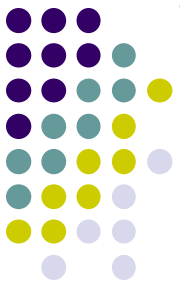
Q

The AREDS

- *ARMD: The AREDS*

- AREDS is the **Age-Related Eye Disease Study**
- Looked at dietary supplements and ARMD:

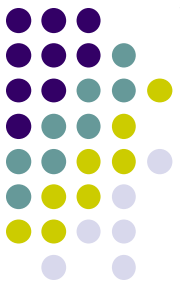




A

The AREDS

- *ARMD: The AREDS*
 - AREDS is the **Age-Related Eye Disease Study**
 - Looked at dietary supplements and ARMD:
 -
 -
 -
 -
 -
- antioxidants*
- minerals*

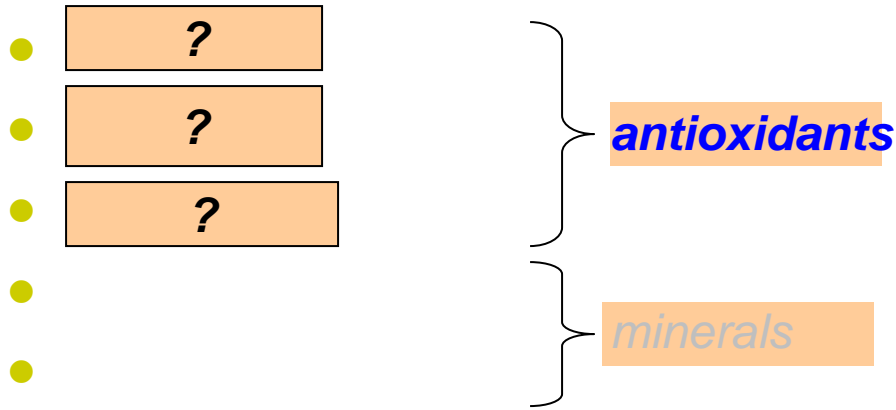


Q

The AREDS

- *ARMD: The AREDS*

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- Looked at dietary supplements and ARMD:





A

The AREDS

- *ARMD: The AREDS*
 - AREDS is the **Age-Related Eye Disease Study**
 - Looked at dietary supplements and ARMD:
 - Vitamin C
 - Vitamin E
 - β -carotene
 -
 -
- } **antioxidants**
- } **minerals**



Q

The AREDS

- *ARMD: The AREDS*

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- Looked at dietary supplements and ARMD:

- **Vitamin C** *dose?*

- **Vitamin E** *dose?*

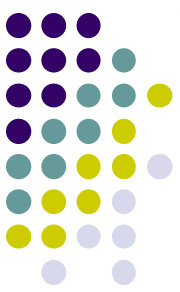
- **β -carotene** *dose?*

-

-

antioxidants

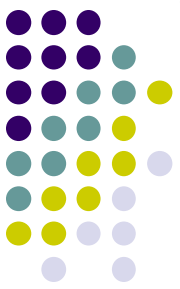
minerals



A

The AREDS

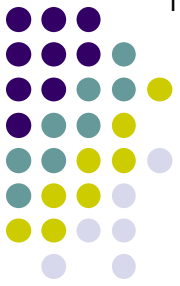
- *ARMD: The AREDS*
 - AREDS is the **Age-Related Eye Disease Study**
 - Looked at dietary supplements and ARMD:
 - **Vitamin C 500 mg**
 - **Vitamin E 400 IU**
 - **β -carotene 15 mg**
 -
 -
- antioxidants*
- minerals*



Q

The AREDS

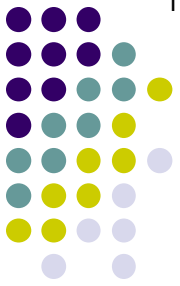
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 - **?**
 - **?**
- antioxidants*
- minerals*



A

The AREDS

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 - **β -carotene 15 mg**
 - **Zinc**
 - **Cupric oxide**
- antioxidants*
- minerals*

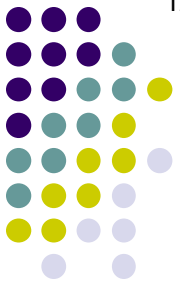


Q

The AREDS

- *ARMD: The AREDS*

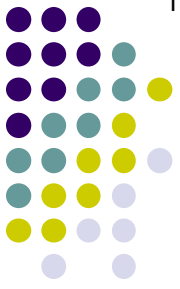
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 - **Vitamin E** 400 IU
 - **β-carotene** 15 mg
 - **Zinc** dose?
 - **Cupric oxide** dose?
- antioxidants*
- minerals*



A

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 - **Cupric oxide** 2 mg
- antioxidants*
- minerals*



Q

The AREDS

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antioxidants

minerals

What is the most common side effect of the AREDS supplement?



A

The AREDS

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 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg

antioxidants

minerals

What is the most common side effect of the AREDS supplement?

GI upset



Q

The AREDS

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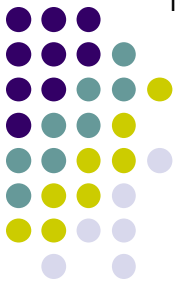
antioxidants

minerals

What is the most common side effect of the AREDS supplement?

GI upset

Which component is responsible?



A

The AREDS

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antioxidants

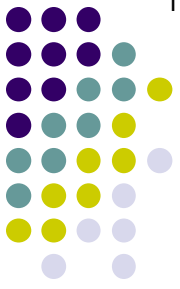
minerals

What is the most common side effect of the AREDS supplement?

GI upset

Which component is responsible?

Zinc



Q

The AREDS

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antioxidants

minerals

What is the most common side effect of the AREDS supplement?

GI upset

Which component is responsible?

Zinc

What can you do for a pt who c/o GI upset but really needs the supplement?



A

The AREDS

- *ARMD: The AREDS*

- AREDS is the **Age-Related Eye Disease Study**
- Looked at dietary supplements and ARMD:

- | | | | |
|----------------|-----------------------------------|---|---------------------|
| ● Vitamin C | 500 mg | } | <i>antioxidants</i> |
| ● Vitamin E | 400 IU | | |
| ● β-carotene | 15 mg | | |
| ● Zinc | 80 mg ⁴⁰ mg | } | <i>minerals</i> |
| ● Cupric oxide | 2 mg | | |

What is the most common side effect of the AREDS supplement?

GI upset

Which component is responsible?

Zinc

What can you do for a pt who c/o GI upset but really needs the supplement?

Cut the zinc dose in half



Q

The AREDS

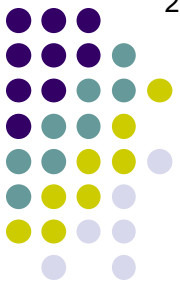
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} *antioxidants*

} *minerals*
- **Study findings:**

- Patients with severity of dz ARMD had a % reduced risk of advanced disease and vision loss



A

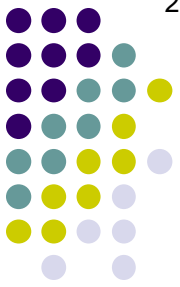
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antioxidants

minerals
- **Study findings:**
 - Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss



Q

The AREDS

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antioxidants

minerals
- **Study findings:**
 - Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss
 - Patients with **severity** ARMD: No benefit



A

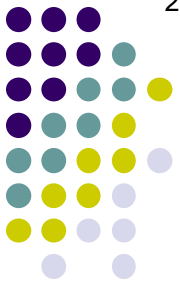
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antioxidants

minerals
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 - Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss
 - Patients with **no/early** ARMD: No benefit



Q

The AREDS

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} **antioxidants**

} **minerals**
- **Study findings:**
 - Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss
 - Patients with **no/early** ARMD: No benefit
- Note: Don't give AREDS supplements to pt population



Q

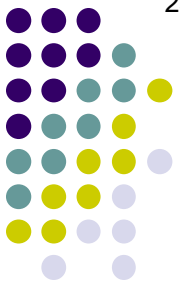
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antioxidants

minerals
- **Study findings:**
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 - Patients with **no/early** ARMD: No benefit
- Note: Don't give AREDS supplements to **smokers**



A

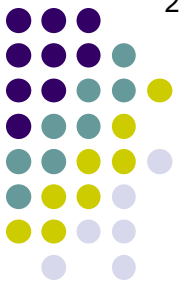
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antioxidants

minerals
- **Study findings:**
 - Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss
 - Patients with **no/early** ARMD: No benefit
- Note: Don't give AREDS supplements to **smokers**
 - **an AREDS anti-ox** increases the risk of lung Ca in these patients



A

The AREDS

- *ARMD: The AREDS*

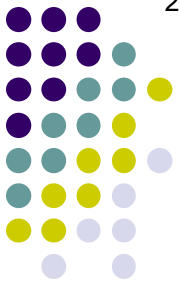
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 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg
- antioxidants*
- minerals*

- **Study findings:**

- Patients with **intermediate/advanced dry** ARMD had a **25%** reduced risk of advanced disease and vision loss
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 - **β -carotene** increases the risk of lung Ca in these patients



Q

The AREDS

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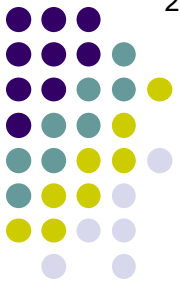
antioxidants

minerals
- Study findings:

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) [something they should be doing regardless]
- 2)
- 3)

- Note: Don't give AREDS supplements to smokers
 - β -carotene increases the risk of lung Ca in these patients



A

The AREDS

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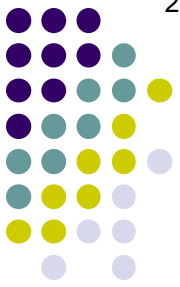
antioxidants

minerals
- **Study findings:**

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) Smoking cessation assistance
- 2)
- 3)

- Note: Don't give AREDS supplements to **smokers**
 - **β-carotene** increases the risk of lung Ca in these patients



Q

The AREDS

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 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg

antioxidants

minerals
- **Study findings:**

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) Smoking cessation assistance
- 2) [AREDS modification]
- 3)

- Note: Don't give AREDS supplements to **smokers**
 - **β-carotene** increases the risk of lung Ca in these patients



A

The AREDS

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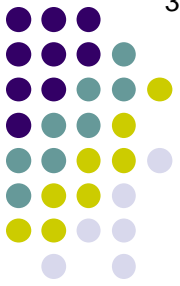
antioxidants

minerals
- **Study findings:**

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) Smoking cessation assistance
- 2) Smoker's formulation (ie, no β-carotene)
- 3)

- Note: Don't give AREDS supplements to **smokers**
 - **β-carotene** increases the risk of lung Ca in these patients



Q

The AREDS

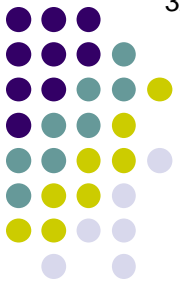
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 - Vitamin C 500 mg
 - Vitamin E 400 IU
 - β -carotene 15 mg
 - Zinc 80 mg
 - Cupric oxide 2 mg
- } antioxidants
- } minerals
- Study findings:

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) Smoking cessation assistance
- 2) Smoker's formulation (ie, no β -carotene)
- 3) [same, but different]

- Note: Don't give AREDS supplements to smokers
 - β -carotene increases the risk of lung Ca in these patients



A

The AREDS

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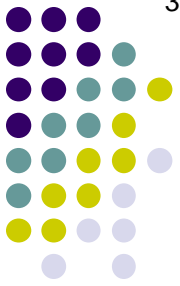
antioxidants

minerals
- **Study findings:**

What can you offer smokers who otherwise might benefit from AREDS supplements?

- 1) Smoking cessation assistance
- 2) Smoker's formulation (ie, no β-carotene)
- 3) AREDS2 supplementation

- Note: Don't give AREDS supplements to **smokers**
 - **β-carotene** increases the risk of lung Ca in these patients



The AREDS

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 - **Cupric oxide** 2 mg

} **antioxidants**

} **minerals**
- **Study findings:**

What can you offer smokers who otherwise might benefit from AREDS supplements?

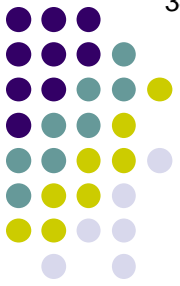
- 1) Smoking cessation assistance
- 2) Smoker's formulation (ie, no β-carotene)
- 3) **AREDS2 supplementation**

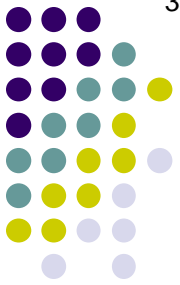
Next, let's drill down on the AREDS2

- Note: Don't give AREDS supplements to **smokers**
 - **β-carotene** increases the risk of lung Ca in these patients

The AREDS₂

- *ARMD: The AREDS₂*
 - Follow-up to the AREDS
 - Vitamin C 500 mg
 - Vitamin E 400 IU
 - β -carotene 15 mg
 - Zinc 80 mg
 - Cupric oxide 2 mg





Q

The AREDS₂

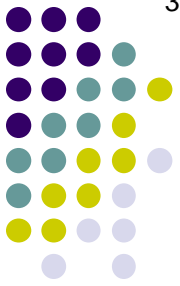
- *ARMD: The AREDS₂*
 - Follow-up to the AREDS
 - Subbed for β -carotene
 - Vitamin C 500 mg
 - Vitamin E 400 IU
 - ~~β -carotene~~ ? & ?
 - Zinc 80 mg
 - Cupric oxide 2 mg



A

The AREDS2

- *ARMD: The AREDS2*
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ **Lutein & Zeaxanthin** *(These are the two xanthophylls employed)*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg



Q

The AREDS2

- *ARMD: The AREDS2*

- Follow-up to the AREDS

- Subbed **xanthophylls** for β -carotene; **added**

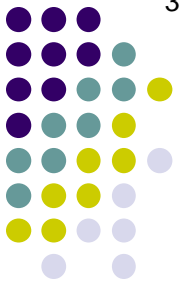
- **Vitamin C** 500 mg

- **Vitamin E** 400 IU

- ~~**β -carotene**~~ *Lutein & Zeaxanthin*

- **Zinc** 80 mg

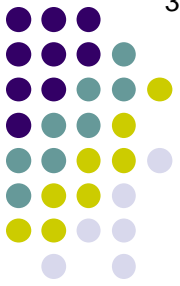
- **Cupric oxide** 2 mg ?



A

The AREDS2

- *ARMD: The AREDS2*
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs:**
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*



Q

The AREDS2

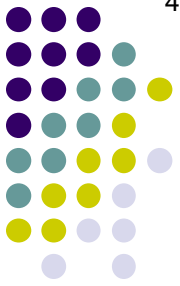
- **ARMD: The AREDS2**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs:**
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - Reaffirmed vs Disputed results of the AREDS



A

The AREDS2

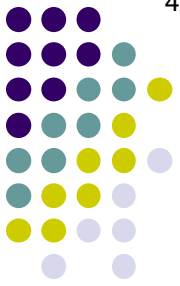
- **ARMD: The AREDS2**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs:**
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS



Q

The AREDS₂

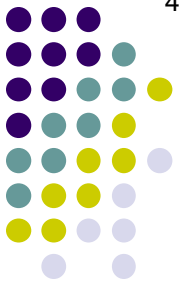
- **ARMD: The AREDS₂**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs:**
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - Xanthophylls effective vs ineffective substitute for β -carotene



A

The AREDS₂

- **ARMD: The AREDS₂**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs:**
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - Xanthophylls **suitable** substitute for β -carotene

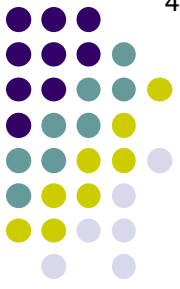


Q

The AREDS₂

- *ARMD: The AREDS₂*
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; added **O3FAs**:
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - **β -carotene** *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - **Xanthophylls** **suitable** substitute for β -carotene

Why is **this** important?



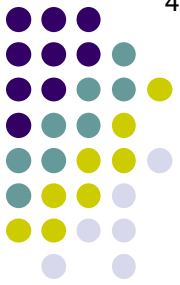
A

The AREDS2

- *ARMD: The AREDS2*
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; added **O3FAs**:
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - **β -carotene** *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - **Xanthophylls suitable substitute for β -carotene**

Why is **this** important? Because it means β -carotene can be dropped, obviating **this** concern

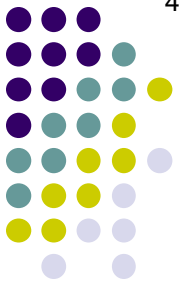
- Note: Don't give AREDS supplements to **smokers**
 - **β -carotene** increases the risk of lung Ca in these patients



Q

The AREDS2

- **ARMD: The AREDS2**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs**:
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - Xanthophylls **suitable** substitute for β -carotene
 - O3FAs effective vs ineffective at reducing risk of progression



A

The AREDS2

- **ARMD: The AREDS2**
 - Follow-up to the AREDS
 - Subbed **xanthophylls** for β -carotene; **added O3FAs**:
 - **Vitamin C** 500 mg
 - **Vitamin E** 400 IU
 - ~~β -carotene~~ *Lutein & Zeaxanthin*
 - **Zinc** 80 mg
 - **Cupric oxide** 2 mg *Omega-3 fatty acids*
 - **Study findings:**
 - **Reaffirmed** results of the AREDS
 - Xanthophylls **suitable** substitute for β -carotene
 - O3FAs **ineffective** at reducing risk of progression