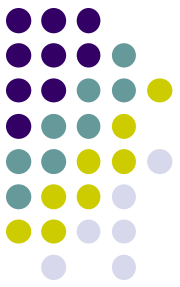


- What five **dietary factors** are known to influence DES status?

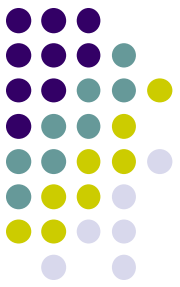


Mnemonic forthcoming...



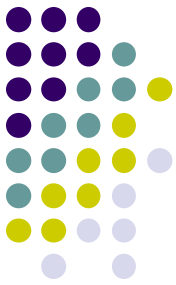
- What five **dietary factors** are known to influence DES status?
 - H
 - A
 - V
 - O
 - C

Imbalance with regard to these factors
can wreak ***havoc*** with your DES status...



- What five **dietary factors** are known to influence DES status?
 - Hydration
 - Antioxidant intake
 - Vitamin intake
 - Omega-3 fatty acid intake
 - Carotenoid levels

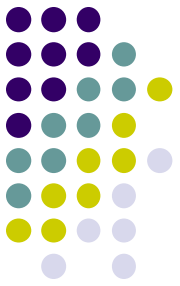
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- *Hydration?*
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*The BCSC unpacks only one of these—
which one?*



- What five **dietary factors** are known to influence DES status?

- Hydration
- Antioxidant intake
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- **Omega-3 fatty acid intake**
- Carotenoid levels

*The BCSC unpacks only one of these—
which one?
O3FA*

Q

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?

- **Omega-3 fatty acid intake**
- Carotenoid levels

Q/A

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?
They are PUFAs, which stands for

three words

- **Omega-3 fatty acid intake**
- Carotenoid levels

A

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?
They are PUFAs, which stands for polyunsaturated fatty aacids

- **Omega-3 fatty acid intake**
- Carotenoid levels

Q

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?

They are PUFAs, which stands for polyunsaturated fatty aacids. And because their carbon chains are long, they are two words PUFAs (abb.).

- **Omega-3 fatty acid intake**
- Carotenoid levels

A

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?

They are PUFAs, which stands for polyunsaturated fatty aacids. And because their carbon chains are long, they are long-chain PUFAs (LCPUFAs).

- **Omega-3 fatty acid intake**
- Carotenoid levels

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In what foods can O3FAs be found?

- ?
- ?
- ?
- ?
- ?

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In what foods can O3FAs be found?

--Fish

--?

--?

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- **Omega-3 fatty acid intake**

- Carotenoid levels

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In what foods can O3FAs be found?

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--Fish, especially salmon, tuna, cod, and flounder

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--Crustaceans

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Biochemically speaking, what sort of molecules are the O3FAs?

They are PUFAs, which stands for **p**oly**u**nsaturated **f**atty **a**acids. And because their carbon chains are long, they are **l**ong-**c**hain PUFAs (LCPUFAs).

In what foods can O3FAs be found?

--Fish, especially salmon, tuna, cod, and flounder

--Crustaceans (eg, two types)

--?

--?

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--Fish, **e**specially **s**almon, tuna, cod, and flounder

--Crustaceans (eg, **s**hrimp and crabs)

--**flaxseed** oil

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--Crustaceans (eg, shrimp and crabs)

--Flaxseed oil

--color,
sorta shape greens

--?

- **Omega-3 fatty acid intake**

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- Fish, **e**specially salmon, tuna, cod, and flounder
- Crustaceans (**e**g, shrimp and crabs)
- Flaxseed oil
- Dark leafy greens
- ?

- **Omega-3 fatty acid intake**

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- Fish, especially salmon, tuna, cod, and flounder
- Crustaceans (eg, shrimp and crabs)
- Flaxseed oil
- Dark leafy greens
- type of nut

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- --Walnuts

- *In addition to being rich in O3FAs, these foods have something else in common vis a vis the American diet—what is that?*

- Most of us don't eat near as much of them as we should

- **Omega-3 fatty acid intake**

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Can O3FAs be gotten through direct supplementation?

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--Flaxseed oil

--Dark leafy greens

--Walnuts

Can O3FAs be gotten through direct supplementation?

Yes, OTC formulations are widely available

In addition to being rich in O3FAs, these foods have something else in common vis a vis the American diet—what is that?

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Omega-3 fatty acid intake

What are the two basic forms of DES?

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Omega-3 fatty acid intake

What are the two basic forms of DES?

- Aqueous-deficient
- Evaporative

Q

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In a nutshell, what is the pathogenesis of aqueous tear deficiency DES?

Q/A

Diet and Dry Eyes

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A

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Omega-3 fatty acid intake

What are the two basic forms of DES?

--Aqueous-deficient

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In a nutshell, what is the pathogenesis of aqueous tear deficiency DES?
Inflammation of the lacrimal glands leads to decreased tear production (the inflammation is mediated by cell type)

A

Diet and Dry Eyes

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Omega-3 fatty acid intake

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Also nutshelled, what is the pathogenesis of evaporative dry eye?

Q/A

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Three words:

A

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Three words: **Meibomian gland dysfunction (MGD)**

Q

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Three words: **Meibomian gland dysfunction** (MGD) . MGD leads to altered meibum composition, which in turn leads to gland .

A

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Omega-3 fatty acid intake

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Of the two, which can be improved via O3FA supps?

A

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Both

Q

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Very broadly speaking, how do O3FAs help DES?

A

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Of the two, which can be improved via O3FA supps?

Both

Very broadly speaking, how do O3FAs help DES?

They block proinflammatory molecules (eg, cytokines)

Q

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- Aqueous-
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Do O3FAs have other beneficial effects within the eye?

Of the two,
Both

Very broadly

They block proinflammatory molecules (eg, cytokines)

Q/A

Diet and Dry Eyes

Biochemically speaking, what sort of molecules are the O3FAs?

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They block proinflammatory molecules (eg, cytokines)

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