In general terms, what is the pathophysiology of CSC?
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Choroidal hyperpermeability $\rightarrow$ serous retinal detachment $\rightarrow$ visual dysfunction

Answer this one first--what directly causes visual dysfunction in CSC?
In general terms, what is the pathophysiology of CSC?

- Choroidal hyperpermeability → serous retinal detachment → visual dysfunction

Now this one--what causes the serous RD?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

In general terms, what is the pathophysiology of CSC?
Choroidal hyperpermeability → serous retinal detachment → visual dysfunction
+ leakage at level of RPE
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

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Is the loss of Snellen acuity usually mild, or severe?
- Mild

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  - Micropsia
  - Scotomata
  - Altered color vision

Is the loss of Snellen acuity usually mild, or severe?
Mild

What is the typical range of Snellen acuity, and the typical value?
The range is 20/20 - 20/200; the typical value is 20/30 or better

A refractive shift may contribute to the decreased VA. If present, what sort of refractive shift is typical?
A hyperopic shift

Why a hyperopic shift?
Because the submacular fluid elevates the fovea, shortening the effective axial length of the eye, thus rendering it more hyperopic

In general terms, what is the pathophysiology of CSC?
Choroidal hyperpermeability → serous retinal detachment → visual dysfunction
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**Q**

In general terms, what is the pathophysiology of CSC?

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+ leakage at level of RPE

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Central Serous Chorioretinopathy/Choroidopathy (CSC)

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  - Decreased VA
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  - Micropsia
  - Scotomata
  - Altered color vision

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**Why a hyperopic shift?**

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Specific visual complaints in CSC:
- Decreased VA
- **Metamorphopsia**
- **Micropsia**
- Scotomata
- Altered color

*What do the terms metamorphopsia and micropsia mean?*

In general terms, what is the pathophysiology of CSC?
Choroidal hyperpermeability → serous retinal detachment → **visual dysfunction**
+ leakage at level of RPE
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - **Metamorphopsia**
  - **Micropsia**
  - Scotomata
  - Altered color

*What do the terms metamorphopsia and micropsia mean?*

*Metamorphopsia* refers to a distortion in the shape of an object’s visual image. *Micropsia* occurs when an object appears to be smaller than its actual size.

*In general terms, what is the pathophysiology of CSC?*

Choroidal hyperpermeability → serous retinal detachment → **visual dysfunction**

+ leakage at level of RPE
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Specific visual complaints in CSC:
- Decreased VA
- Metamorphopsia
- Micropsia
- Scotomata
- Altered color vision

Classic CSC demographics:
- Sex:
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male

What is the male:female ratio?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: **Male**

*What is the male:female ratio?*  
*About 3:1*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: **Male**

What is the male:female ratio?

**About 3:1**

3:1??!! I thought it was more like 10:1, or at least 6:1. What gives?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: **Male**

**What is the male:female ratio?**

About 3:1

3:1??!! I thought it was more like 10:1, or at least 6:1. What gives?

It’s true that early studies found ratios in the 6:1 to 10:1 range. However, upon further review it is clear that the early research heavily overrepresented males. So 3:1 it is.
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age:
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Specific visual complaints in CSC:
- Decreased VA
- Metamorphopsia
- Micropsia
- Scotomata
- Altered color vision

Classic CSC demographics:
- Sex: Male
- Age: 35 – 55

What diagnosis must you consider carefully before deciding an individual over 50 has CSC?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55

What diagnosis must you consider carefully before deciding an individual over 50 has CSC? Wet ARMD
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection:
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection: None
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection: None
  - General health:
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
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- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection: None
  - General health: Good
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
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- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection: None
  - General health: Good
  - Personality:
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
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  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male
  - Age: 35 – 55
  - Racial predilection: None
  - General health: Good
  - Personality: ‘Type A’
Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
  - Metamorphopsia
  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male

What words are we looking for to clue us in we’re dealing with someone predisposed personality-wise to CSC?

- Personality: ‘Type A’
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
  - Decreased VA
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  - Micropsia
  - Scotomata
  - Altered color vision

- Classic CSC demographics:
  - Sex: Male

What words are we looking for to clue us in we’re dealing with someone predisposed personality-wise to CSC?

- ‘Tense’
- ‘Driven’
- ‘Stressed’

- Personality: ‘Type A’
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An (aka two words)
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An **expansile dot** (aka **ink blot**)
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An expansive dot (aka *ink blot*)
  - Less common, but more classic: one word
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An **expansile dot** (aka *ink blot*)
  - Less common, but more classic: **Smokestack**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An expansile dot (aka ink blot)
  - Less common, but more classic: Smokestack

What is the shape of the classic smokestack pattern?

Um, a smokestack? Importantly, it is not smokestack-shaped. Rather, it is so named because the dye behaves as if it's smoke billowing from a smokestack. And the Retina book provides a particular description of this behavior. What is it? 'Tree shaped;' ie, a narrow, trunk-like portion below with a spread-out, canopy-like portion above. So, it's a smokestack yielding a tree? Isn't that a rather awkward mixing of metaphors? What can I say--I'm just the messenger…
Three leakage patterns seen on FA:

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**Central Serous Chorioretinopathy/Choroidopathy (CSC)**

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Central Serous Chorioretinopathy/Choroidopathy (CSC)

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- **Less common, but more classic:** Smokestack

*What is the shape of the classic smokestack pattern? Um, a smokestack?*

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What can I say--I’m just the messenger…
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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*Does OCT have any advantages as an imaging modality for CSC?*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Three leakage patterns seen on FA:
- Most common: An expansile dot (aka *ink blot*)
- Less common, but more classic: Smokestack

*Does OCT have any advantages as an imaging modality for CSC? It does indeed. In addition to being noninvasive, OCT can reveal subtle amounts of subretinal fluid (SRF) and/or sub-RPE fluid that may be too scant to be detected via FA.*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An expansile dot (aka *ink blot*)
  - Less common, but more classic: Smokestack

- CSC pathophysiology in a nutshell:
  - Choroidal hyperpermeability + altered RPE

*(this question is a recapitulation of the info covered at the outset of the slide-set)*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An *expansile dot* (aka *ink blot*)
  - Less common, but more classic: *Smokestack*

- CSC pathophysiology in a nutshell:
  - Choroidal *hyperpermeability* + altered RPE barrier function \(\rightarrow\) serous retinal detachment
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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  - Most common: An expansile dot (aka *ink blot*)
  - Less common, but more classic: Smokestack

- CSC pathophysiology in a nutshell:
  - Choroidal *hyperpermeability* + altered RPE barrier function → serous retinal detachment

- Natural course of CSC:
  - Resorb spontaneously within *time frame* 90% resorb spontaneously within 6 months
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An expansile dot (aka *ink blot*)
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  - 90% resorb spontaneously within 6 months
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- Most common: An expansile dot (aka *ink blot*)
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CSC pathophysiology in a nutshell:
- Choroidal *hyperpermeability* + altered RPE barrier function $\rightarrow$ *serous retinal detachment*

Natural course of CSC:
- *90%* resorb spontaneously within *6 months*
- Snellen VA usually returns to baseline vs remains poor
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An **expansile dot** (aka *ink blot*).
  - Less common, but more classic: **Smokestack**.

- CSC pathophysiology in a nutshell:
  - Choroidal **hyperpermeability** + altered RPE barrier function $\rightarrow$ **serous retinal detachment**.

- Natural course of CSC:
  - **90%** resorb spontaneously within 6 months.
  - Snellen VA usually **returns to baseline**.
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- **Three leakage patterns seen on FA:**
  - Most common: An expansile dot (aka *ink blot*)
  - Less common, but more classic: Smokestack

- **CSC pathophysiology in a nutshell:**
  - Choroidal hyperpermeability + altered RPE barrier function → serous retinal detachment

- **Natural course of CSC:**
  - 90% resorb spontaneously within 6 months
  - Snellen VA usually returns to baseline
  - Residual mild deficits common or uncommon
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
  - Most common: An **expansile dot** (aka *ink blot*)
  - Less common, but more classic: **Smokestack**

- CSC pathophysiology in a nutshell:
  - Choroidal **hyperpermeability** + altered RPE barrier function → **serous retinal detachment**

- Natural course of CSC:
  - **90%** resorb spontaneously within **6 months**
  - Snellen VA usually **returns to baseline**
    - Residual mild deficits **common**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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- Most common: An **expansile dot** (aka *ink blot*)
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CSC pathophysiology in a nutshell:
- Choroidal **hyperpermeability** + altered RPE barrier function $\rightarrow$ **serous retinal detachment**

Natural course of CSC:
- **90%** resorb spontaneously within **6 months**
- Snellen VA usually **returns to baseline**
  - Residual mild deficits **common**
  - **50%** have recurrence
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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  - Most common: An **expansile dot** (aka *ink blot*)
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- Natural course of CSC:
  - **90%** resorb spontaneously within **6 months**
  - Snellen VA usually **returns to baseline**
    - Residual mild deficits **common**
  - **50%** have recurrence
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous *can be a drug, or not*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management
- Assess for high levels of endogenous or exogenous corticosteroids

Which of these corticosteroid administration routes have been associated with CSC?
--PO?
--IV?
--Topical?
--Intra-articular?
--Intranasal?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids

Which of these corticosteroid administration routes have been associated with CSC?

- PO!
- IV!
- Topical!
- Intra-articular!
- Intranasal!

All have been implicated in CSC
Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

Assess for high levels of endogenous or exogenous corticosteroids

Which of these corticosteroid administration routes have been associated with CSC?

--PO!
--IV!
--Topical!
--Intra-articular!
--Intranasal!

All have been implicated in CSC

--Intravitreal?

What about intravitreal steroids? Surely these can cause CSC as well?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids

**Which of these corticosteroid administration routes have been associated with CSC?**

- PO!
- IV!
- Topical!
- Intra-articular!
- Intranasal!
- Intravitreal? NO!

*All* have been implicated in CSC

What about intravitreal steroids? Surely these can cause CSC as well?
You’d think so, but no--there is no evidence that it does!
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? Sildenafil, and MEK inhibitors
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? Sildenafil, and MEK inhibitors

What class of med is sildenafil?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they?

**Sildenafil**, and MEK inhibitors

*What class of med is sildenafil?*

It is a phosphodiesterase-5 (PDE5) inhibitor
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- **Still more re CSC: Management**
  - Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? **Sildenafil**, and MEK inhibitors

**What class of med is sildenafil?**
It is a phosphodiesterase-5 (PDE5) inhibitor

**How do PDE5 inhibitors cause CSC?**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids

*Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? Sildenafil, and MEK inhibitors*

*What class of med is sildenafil? It is a phosphodiesterase-5 (PDE5) inhibitor*

*How do PDE5 inhibitors cause CSC? Probably by inducing dilation of the choroidal vasculature*
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? Sildenafil and MEK inhibitors

What does MEK stand for in this context?

Corticosteroids are the classic cause. Other meds are mentioned in the BCSC Retina book. Sildenafil and MEK inhibitors. MEK inhibitors are used to treat metastatic cancer. MEK-associated retinopathy is called 'MEK-associated retinopathy' (MEKAR). It is very prevalent, estimates run as high as 90% of MEK users will experience MEKAR. It is not very visually significant. Most patients are asymptomatic, or only slightly affected. MEKAR is not an indication to stop the MEKi.
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids

Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they?

Sildenafil and MEK inhibitors

What does MEK stand for in this context? Don’t ask—it’s complicated

What are MEK inhibitors (MEKIs) used to treat?

Metastatic cancer

What is MEKi-associated retinopathy called?

It is called ‘MEKi-associated retinopathy’ (MEKAR)

How prevalent is MEKAR?

Very—estimates run as high as 90% of MEKi users will experience MEKAR

How visually significant is MEKAR?

Not very—most pts are asymptomatic, or only slightly affected

Is MEKAR an indication to stop the MEKi?

No
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management
- Assess for high levels of endogenous or exogenous corticosteroids.

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What does MEK stand for in this context? Don’t ask—it’s complicated.

What are MEK inhibitors (MEKIs) used to treat? Metastatic cancer.

What is MEK-associated retinopathy called? It is called ‘MEK-associated retinopathy’ (MEKAR).

How prevalent is MEKAR? Very—estimates run as high as 90% of MEKIs users will experience MEKAR.

How visually significant is MEKAR? Not very—most pts are asymptomatic, or only slightly affected.

Is MEKAR an indication to stop the MEK inhibitor? No.
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

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Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous **corticosteroids**
- Wait about **time frame** for spontaneous resolution
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about **3 months** for spontaneous resolution
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution

Why should intervention be considered at around the 3-month point?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about **3 months** for spontaneous resolution

*Why should intervention be considered at around the 3-month point? Because photoreceptor atrophy will begin to occur at this juncture*
Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous **corticosteroids**
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with **two words**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with **previous deficit**
  - this reason has nothing to do with the current eye/episode
Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous **corticosteroids**
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with **previous deficit**
  - **Decreased vision in fellow eye from previous episode**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about 3 months for spontaneous resolution
  - Reasons to treat sooner than 3 months:
    - Recurrence in eye with previous deficit
    - Decreased vision in fellow eye from previous episode
    - Retinal changes
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about **3 months** for spontaneous resolution
  - Reasons to treat sooner than 3 months:
    - Recurrence in eye with *previous deficit*
    - **Decreased vision in fellow eye from previous episode**
    - **Cystic** retinal changes
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
  - Decreased vision in fellow eye from previous episode
  - Cystic retinal changes
  - Widespread changes
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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- Assess for high levels of endogenous or exogenous corticosteroids
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  - Cystic retinal changes
  - Widespread RPE changes
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
  - Decreased vision in fellow eye from previous episode
  - Cystic retinal changes
  - Widespread RPE changes
  - **Occupational needs**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about **3 months** for spontaneous resolution
  - Reasons to treat sooner than 3 months:
    - Recurrence in eye with previous deficit
    - Decreased vision in fellow eye from previous episode
    - Cystic retinal changes
    - Widespread RPE changes
    - Occupational needs
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
  - Decreased vision in fellow eye from previous episode
  - Cystic retinal changes
  - Widespread RPE changes
  - Occupational needs

Treatment: Photodynamic therapy
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about **3 months** for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
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  - Widespread RPE changes
  - Occupational needs
- Treatment: **Photodynamic therapy**
Still more re CSR: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution

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*What is photodynamic therapy?*

- Treatment: **Photodynamic therapy**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSR: Management
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about 3 months for spontaneous resolution

*What is photodynamic therapy?*
A form of phototherapy for vascular lesions, usually within the posterior segment of the eye

- Occupational needs
- Treatment: Photodynamic therapy
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSR: Management

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution

What is photodynamic therapy?
A form of phototherapy for vascular lesions, usually within the posterior segment of the eye

Briefly, how does it work?

Occupational needs

Treatment: Photodynamic therapy
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSR: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
  - Wait about **3 months** for spontaneous resolution

*What is photodynamic therapy?*
A form of phototherapy for vascular lesions, usually within the posterior segment of the eye

*Briefly, how does it work?*
A light-sensitive chemical is injected intravenously, and time sufficient to allow concentration of the chemical in the lesion is allowed to pass. Light of the wavelength needed to activate the chemical is then delivered. The chemical is stimulated to react with oxygen to create free radicals, which degrade the lesion and/or its vasculature.

- Occupational needs
- **Treatment:** **Photodynamic therapy**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSR: **Management**
  - Assess for high levels of endogenous or exogenous corticosteroids
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*What is the name of the infused chemical?*

- Treatment: **Photodynamic therapy**
  - Occupational needs
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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*What is the name of the infused chemical?*
Verteporfin

- Occupational needs
- **Treatment**: **Photodynamic therapy**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids
- Wait about 3 months for spontaneous resolution
- Reasons to treat sooner than 3 months:
  - Recurrence in eye with previous deficit
  - Decreased vision in fellow eye from previous episode
  - Cystic retinal changes
  - Widespread RPE changes
  - Occupational needs
- Treatment: Thermal laser?
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
  - Assess for high levels of endogenous or exogenous corticosteroids
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    - Recurrence in eye with previous deficit
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    - Widespread RPE changes
    - Occupational needs
  - Treatment: Thermal laser? Meh

**What about thermal laser? It is an effective treatment?**
Yes and no. Thermal laser does hasten fluid resorption, and thus facilitates faster visual recovery. However, when studies compare treated vs untreated eyes:
- Final visual acuity was no different between groups
- Recurrence rate was no different between groups

**Thermal laser? Meh**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Still more re CSC: Management

- Assess for high levels of endogenous or exogenous corticosteroids
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What is the rare-but-devastating complication associated with thermal laser treatment?

- Decreased vision in fellow eye from previous episode
  - Cystic retinal changes
  - Widespread RPE changes
  - Occupational needs

Treatment: Thermal laser? Meh
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: Management
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Inadvertent rupture of Bruch’s membrane leading to iatrogenic CNVM
Central Serous Chorioretinopathy/Choroidopathy (CSC)

**Still more re CSC:** Management

- Assess for high levels of endogenous or exogenous corticosteroids
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**Can CSC pts develop CNVM spontaneously?**

**Treatment:** Thermal laser? Meh
Central Serous Chorioretinopathy/Choroidopathy (CSC)

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**Treatment:** Thermal laser? Meh
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
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  - Reasons to treat sooner than 3 months:
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    - Decreased vision in fellow eye from previous episode
    - Cystic retinal changes
    - Widespread RPE changes
    - Occupational needs

Remember, the treatment of choice in most CSC cases is **observation**

- Decreased vision in fellow eye from previous episode
- Cystic retinal changes
- Widespread RPE changes
- Occupational needs

- Treatment: **Photodynamic therapy**
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Differential for CSC:

- Optic nerve pit
- VKH
- Wet ARMD
- PED
- Toxemia of pregnancy
- Choroidal nevi
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Differential for CSC:
- Optic nerve pit
- Vogt-Koyanagi-Harada (VKH) disease
- Wet age-related macular degeneration (ARMD)
- Pigment epithelial detachment (PED)
- Toxemia of pregnancy
- Choroidal nevi
- Polypoidal choroidal vasculopathy
Central Serous Chorioretinopathy/Choroidopathy (CSC)

Is it CSC or wet ARMD? An important distinction to make—can you make it?

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*In the context of CSC, what are descending tracts?*  
Long, narrow areas of RPE change extending inferiorly from the areas of SRF
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**What is the cause?**
Gravity-dependent ‘dripping’ of the SRF

**By what other name is this phenomenon known?**
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