

# What the body normally does to keep you from fainting every time you stand up

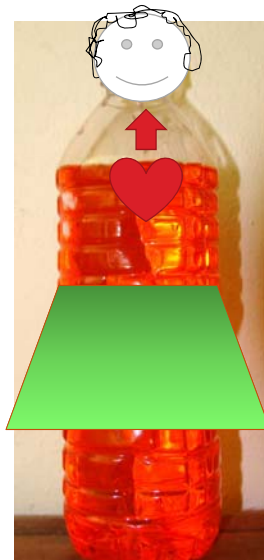
By Kay E. Jewell, MD  
August 28, 2012

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## Normal Standing Up and Blood Volume

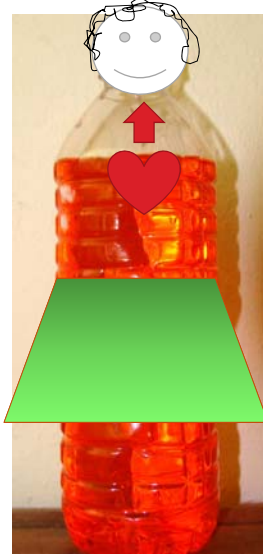


There is enough blood reaching the heart so it can pump blood up to the head and out to the rest of the body.

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### Normal Standing Up and Blood Volume

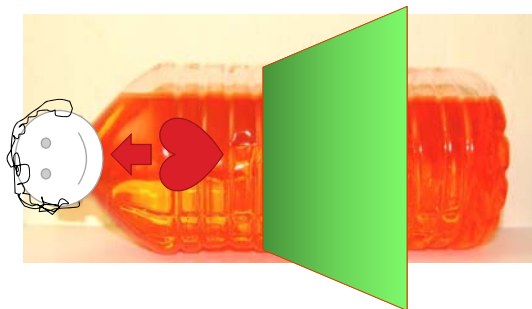


There is enough blood reaching the heart so it can pump blood up to the head and out to the rest of the body.

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### Normal - Lying down



Gravity shifts the blood into the chest, where the heart is.

The heart doesn't have to pump as hard to get the blood out to the rest of the body and up to the head.

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## Normal – Blood shift when you stand up



Volume shifts within seconds when you stand up.

The blood volume shifts to the legs and abdomen – the vessels get larger to hold the blood.

Volume shifted – 300-800 ml

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## Normal – Blood shift when you stand up



Volume shifts within seconds when you stand up.

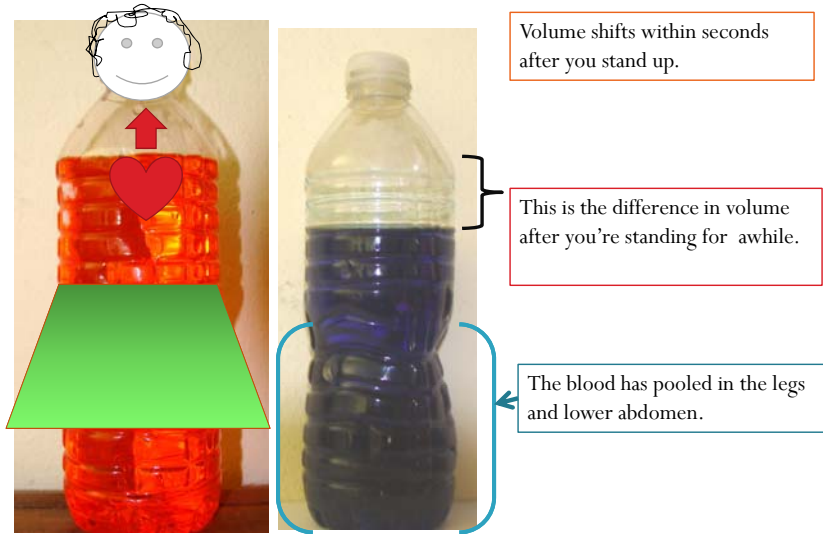
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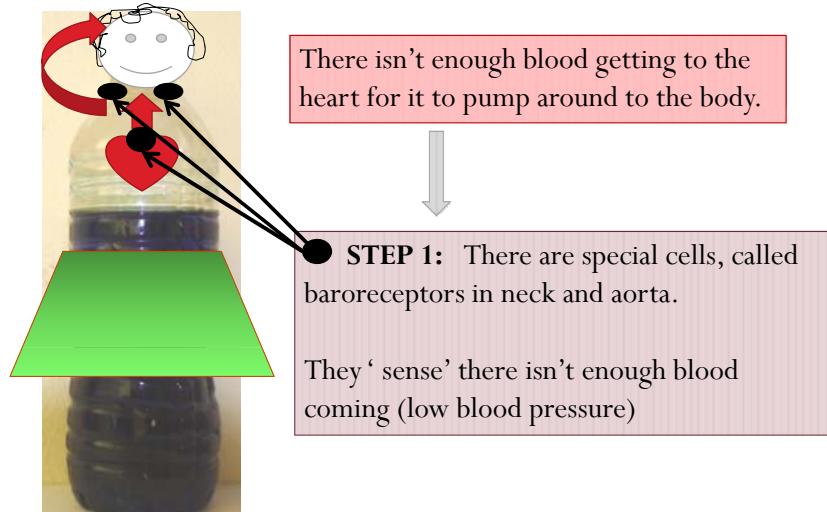
### Normal - Blood shift when you stand up



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### How your body reacts when you stand up and the blood drops to your feet



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## How your body reacts when you stand up and the blood drops to your feet

**STEP 2:**

The baroreceptors send an urgent message to the brain.



There isn't enough blood getting to the heart for it to pump around to the body.

● **STEP 1:** Special cells, called baroreceptors in neck and aorta – sense there isn't enough blood coming (low blood pressure)

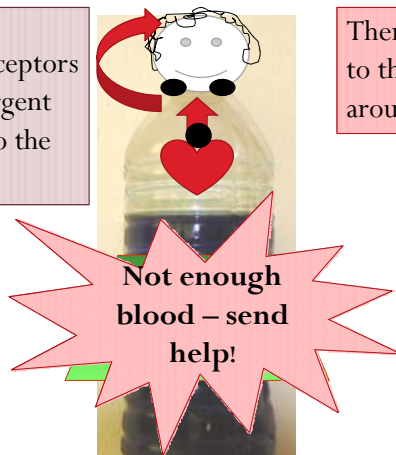
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## How your body reacts when you stand up and the blood drops to your feet

**STEP 2:**

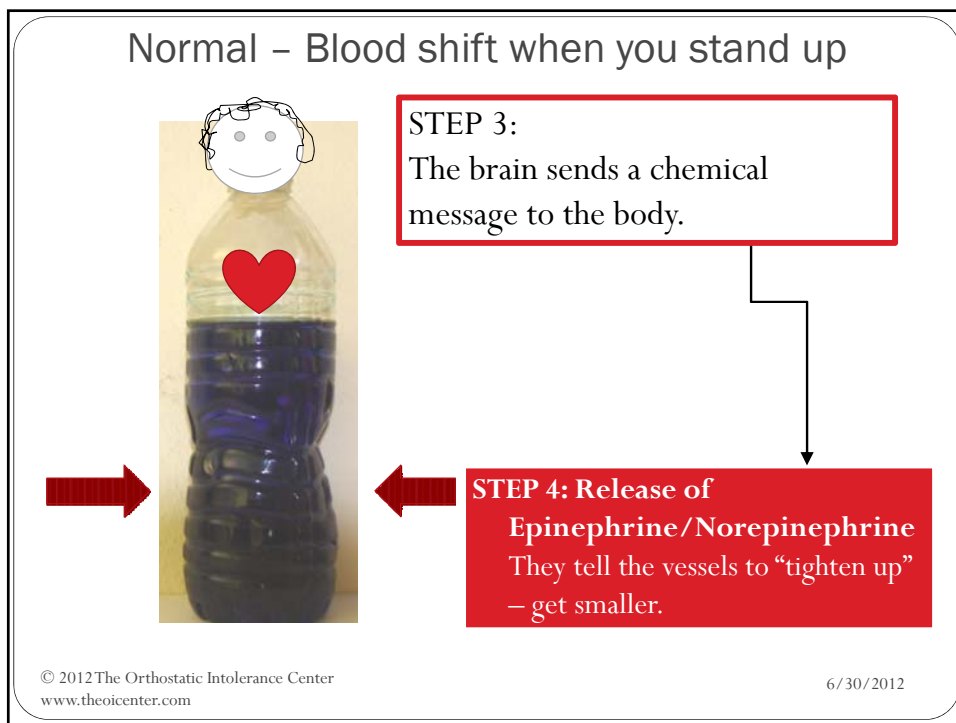
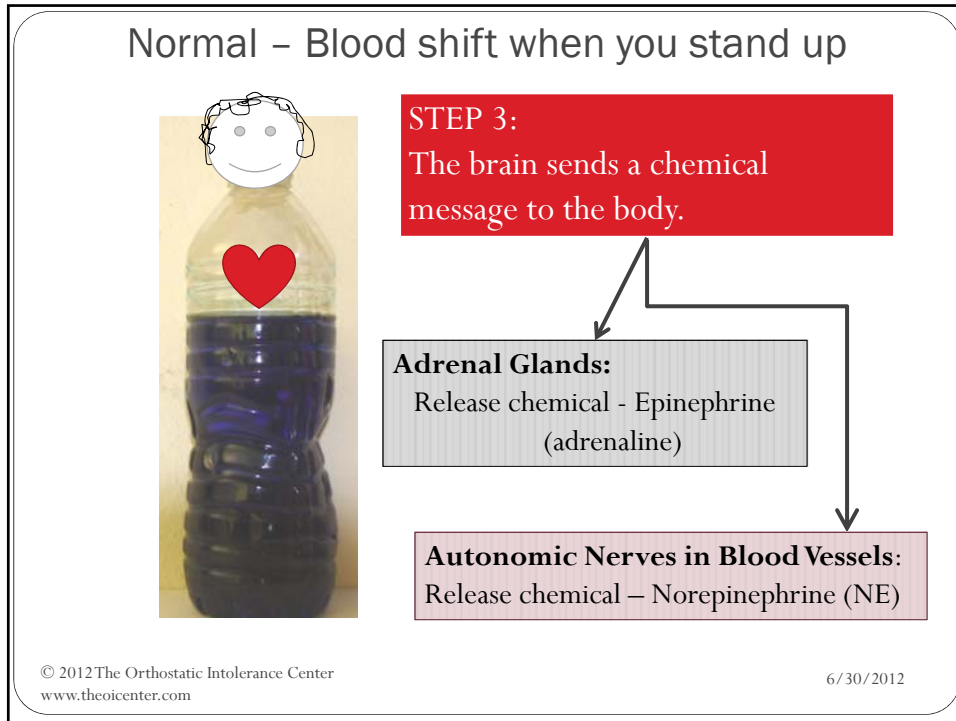
The baroreceptors send an urgent message to the brain.

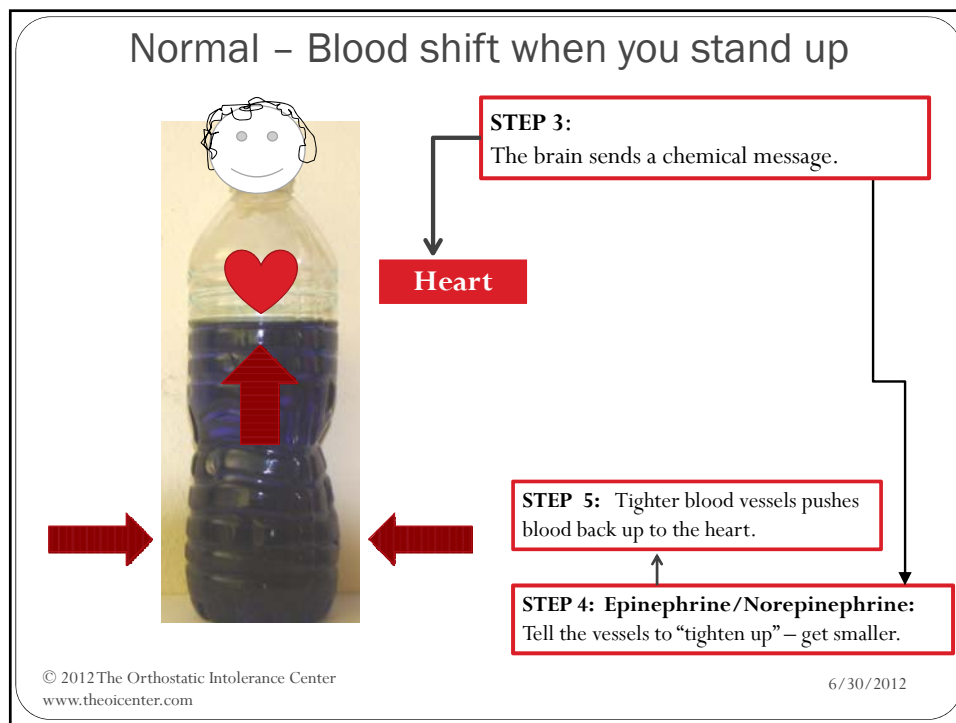
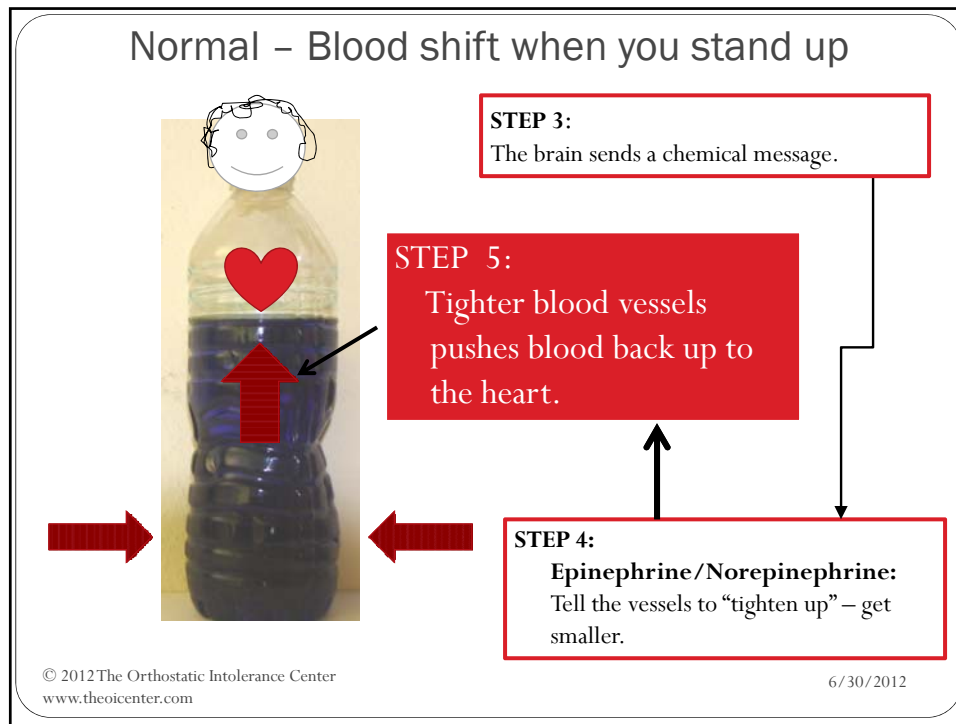


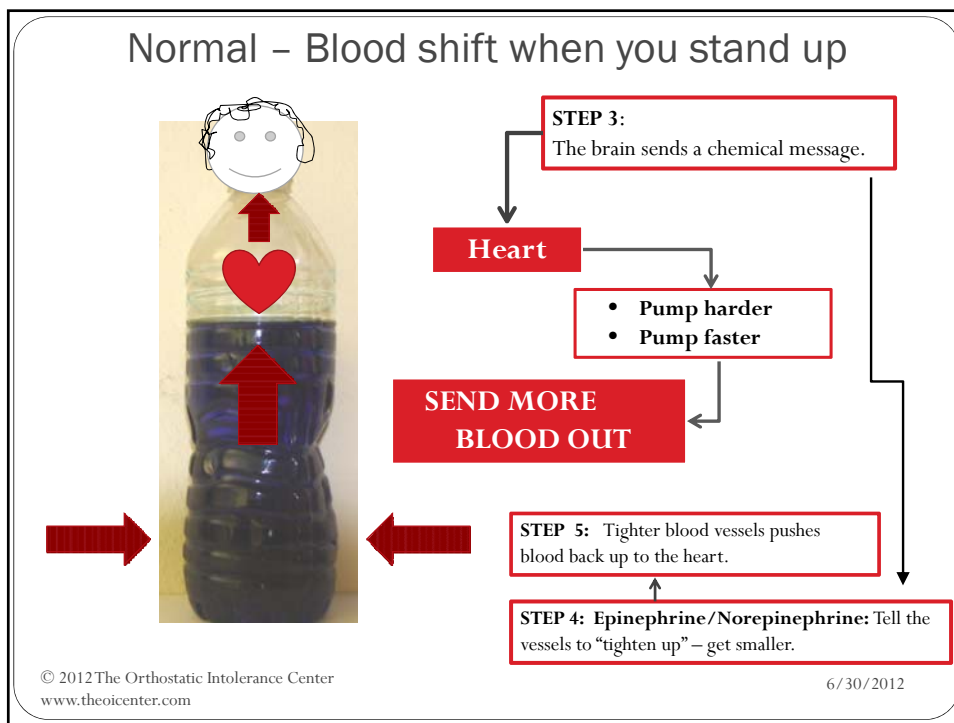
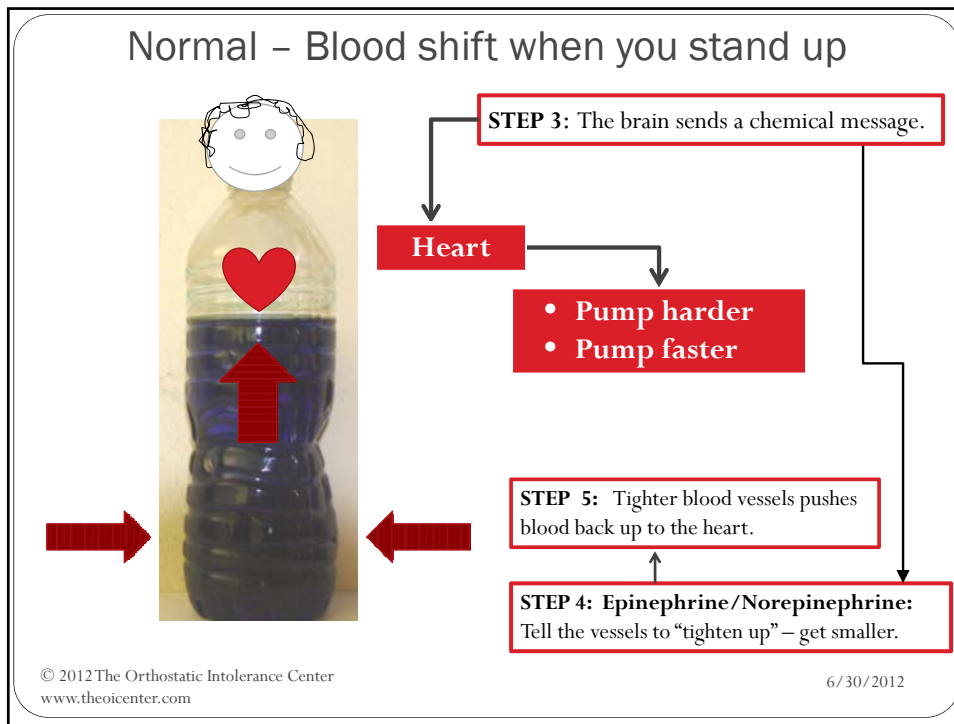
There isn't enough blood getting to the heart for it to pump around to the body.

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## The Body Returns to “Normal”

After the body has adjusted to standing up,

the blood volume that is reaching the heart is back to “normal” .

There is enough blood reaching the heart so it can pump it out to the head and the rest of the body again.



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## What Happens with Orthostatic Intolerance?

NEXT

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