

# How the Female Brain Sees the Body It's Attached To



Real or  
Distorted  
Body Image?

Do you get dressed in a room with no mirror so you can escape the inevitable judgment call on whether you're "too fat"? **Did you ever stop to consider which version of you is too fat** – the version of you that you see in the mirror or the one you hold in your female brain?

A recently published study in the Proceedings of the National Academy of Sciences by researchers from the University College London suggests the **brain is capable of turning your actual physical body image into something that it's not.**

In a simple experiment, subjects inaccurately identified the location of 10 hand features, e.g., knuckles and fingertips, when the palm of their left hand was hidden under a board. The estimated locations of these features reflected a distorted brain map of their actual hand.

Estimates made the hand approximately two-thirds wider and one-third shorter; it increased the distance between index finger and thumb by 69% and made the length of fingertips 27.9% shorter. Yet, **when asked to visually identify their hand from photo images, subjects were accurately able to do so.**

Dr. Matthew Longo, head researcher, believes the brain is

constructing another kind of hand image based on the non-visual sensory feedback. The brain normally processes feedback information from neural receptors telling it where the body is in space, the location of internal organs and the **“positioning”** – awareness of the different body parts in relation to one another.

**When the brain does not have visual clues, it can inaccurately process the “positioning” of various body parts.**

Longo theorizes that certain women who are not really fat but anxious about their stomach and thighs may be creating brain distortions of these areas.

Both the stomach and the thighs are known to have highly sensitive neural receptors. The brains of certain women may be creating distorted images based on inaccurate neural sensory information from these same areas. **The distorted brain images may even override any visual evidence to the contrary.**

This also has possible implications for understanding why women with *anorexia nervosa* may not connect their actual visual body image with the image their brains perceive of themselves.

**So while the mirror doesn't lie, the female brain can be convinced to see fat when its not there. For the rest if us females who already knows the fat really is there, we need to be convincing our female brains that it's not.**

by Joyce Hasen