Medical Xpress

Hugging is good for you, but only with someone you know very well

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Hugging someone can help reduce stress, fear and anxiety, has a lowering effect on blood pressure, promotes wellbeing and improves memory performance. These positive effects are caused by the secretion of the peptide oxytocin – but only when we are hugged by someone we know very well. Hugging strangers can have the opposite effect, as neurophysiologist Jürgen Sandkühler, Head of the Centre for Brain Research at the Medical University of Vienna, points out in anticipation of "National Hug Day" on 21st January 2013.

Oxytocin, a hormone produced by the pituitary gland, is primarily

known for increasing bonding, social behaviour and closeness between parents, children and couples. Increased oxytocin levels have been found, for example, in partners in functional relationships. In women, it is also produced during the childbirth process and during breastfeeding in order to increase the mother's bond with the baby.

"The positive effect only occurs, however, if the people trust each other, if the associated feelings are present mutually and if the corresponding signals are sent out," says Sandkühler. "If people do not know each other, or if the hug is not desired by both parties, its effects are lost."

The same applies to the length of the hug. "Hugging is good, but no matter how long or how often someone hugs, it is trust that's more important." Once the trust is there, positive effects on the oxytocin level can be achieved simply as a result of the increased emphatic behaviour, says the brain researcher: "Studies have shown that children whose mothers have been given extra oxytocin have higher levels of the hormone themselves, i.e. solely as a result of the mother's behaviour."

Oxytocin can be given in tablet form or as a nasal spray and, since it can trigger contractions, is also used in obstetrics. It also stimulates the female milk ducts, thereby increasing milk flow while breastfeeding.

Hugs from strangers cause stress

When we receive unwanted hugs from strangers or even people we know, the hormone is not released. "This can lead to pure stress because our normal distance-keeping behaviour is disregarded. In these situations, we secrete the stress hormone cortisol," says Sandkühler. The well-known worldwide "free hugs" campaign would only have a beneficial effect, says the MedUni researcher, "if everyone involved is clear that it is just a harmless bit of fun." Otherwise, it could be perceived as an emotional burden and stress. "Everyone is familiar with

such feelings from our everyday lives, for example, if someone we don't know comes too close to us for no apparent reason. This violation of our normal distance-keeping behaviour is then generally perceived as disconcerting or even as threatening."

Provided by Medical University of Vienna