

Oxytocin Love.

Contributed by Aleksandr Kavokin, MD, PhD

Today we welcome Susan Kuchinskas, the writer who loves oxytocin.

I know Susan from the collaborative work at Indy Science Blogs project.

What is oxytocin? One of the hormones. And why Susan loves it? [Read the interview](#)

There are many other hormones. Why did you choose oxytocin? Why did you start to blog about oxytocin?

Yes, there are many hormones, and they all play a vital role in helping us eat, drink, breathe and stay alive. But what's the most interesting, perplexing, exciting thing about being human? Most people would say it's love -- and oxytocin is the hormone that allows us to love and feel loved. When I found out about oxytocin's role in bonding, I got very excited and began work on a book. The blog is a way for me to share some of the amazing information I'm learning ahead of the book, which won't be published until the end of 2007.

Why is your blog named Hug the Monkey?

In the 1950s and 1960s, a psychologist named Harry Harlow did experiments with monkeys that proved that mothering was essential for emotional and physical health. Some of his experiments were extremely cruel and sad. Baby monkeys deprived of comfort were in anguish. There's one photo of a baby rhesus monkey curled up and clutching himself that is deeply distressing.

One night, I dreamed that I went to visit some people, and they had a baby monkey they weren't taking care of. It was lying on the floor looking miserable. I picked it up, hugged it and rocked it. I woke up thinking to myself, "Hug the monkey. Hug the monkey."

It's become a metaphor to me for the way we need to nurture ourselves and each other by hugging, touching, listening and loving.

You talk about oxytocin therapy and autism. Could you give some more details about that?

Many scientists I've spoken to think that some of the symptoms of autism spectrum disorder, or ASD, may be caused by a malfunction in the way the brain processes and responds to social information and stimuli. And oxytocin is central to the workings of what they call the "social brain." One hypothesis is that the use of artificial oxytocin to stimulate labor can make an infant's brain oversensitive to it, so that later, when his brain begins to secrete oxytocin in response to intimacy, instead of feeling good, it feels bad. So the child learns to retreat from social interaction.

Another piece of evidence is the fact that boys are many times more likely to have ASD than girls, and girls have far more oxytocin receptors in their brains than boys do.

There are several studies testing the use of oxytocin to treat ASD symptoms, and one study at the U.S. National Institutes of Health reported positive results in adults.

Tell more about the book you are writing.

My book has the working title of "Love Chemistry." It will be published by Amacom Books in late 2007. I'm explaining how oxytocin modulates our experiences of love, trust and bonding with others. There's one really important point, which is that we're not born with this neural response; it's learned after birth, and it's shaped by our earliest experiences with our mother (or another primary caregiver). And, this response may not develop in a healthy way. So, my book will also describe the ways an unhealthy oxytocin response can interfere with our ability to love and feel loved throughout our lives. Finally, I'll discuss the ways that we can heal the oxytocin response at any age.

You mentioned that oxytocin is the hormone of peace and satisfaction, but the more anxious someone become about romance, the more oxytocin circulated in blood. Could you explain that paradox?

This was a finding from a study in Italy published in 2005. Oxytocin acts both as a hormone in the peripheral nervous system, where it balances the stress chemicals, and as a neurotransmitter in the brain. These scientists measured levels of oxytocin in the blood as an analogue to levels in the brain; many studies accept that the level in the blood is a good indicator of what's in the brain.

There's a constant balancing act in the body between the stress and calming systems, that is, the sympathetic and parasympathetic nervous systems. As a stressful situation develops, the stress chemicals go up. Then, the calming chemicals kick in to keep our systems from over-amping.

So, these researchers at the University of Pisa posit that the elevated levels of oxytocin in these anxious lovers was the result of their systems responding to the stress they felt about their relationships.

There are many different treatments for sleep apnea. You mention a patent application for use of oxytocin to treat sleep apnea. Do you believe it will work?

Yes. It's not something that seems obvious, but the inventor, Dr. Jeffrey Gould, runs a sleep disorder clinic in Pennsylvania, and he's tested this treatment with success.

You are also the author of The 360 at techblog, a blog that deals with internet technologies. Does your writing experience help you to write about oxytocin?

Yes. I've spent a lot of my career translating concepts in technology for a general business audience. I've learned to decipher jargon and technical terms and to understand how technical information matters to our daily lives. These are skills that are very helpful in reading the scientific papers that are the basis of my book.

What do you think about the future of oxytocin and other hormone applications?

I think this will be a new and very important frontier in medicine. While immense work has been done developing drug therapies that target specific processes in the body, oxytocin therapy may be more holistic, simulating the body's natural healing processes.

There were recently some controversies about hormone replacement therapy. Are there any controversies about oxytocin?

Not yet. This is still too new. However, I think down the line, as the general public gets more information about oxytocin and what it does, there may be great interest in using it as a supplement. However, HRT replaces hormones that the body no longer is producing. The body doesn't lose its ability to produce oxytocin (although, with a decrease in estrogen, it's likely that the female body in menopause also loses some ability to respond to oxytocin.)

I think that there's a danger that people will turn to oxytocin to give them the feelings of peace that they should receive from interacting with other people. It would be a tragedy if we used oxytocin as a drug to replace human connection.

Do people who visit your blog eventually contact you by other means?

Sometimes. I really enjoy hearing from other people who are fascinated by the influence of oxytocin in our experience of being human.

Great Interview and many thanks to Susan.

You can trackback from your own site.

Tags: ((oxytocin)) ((hormone)) ((love)) ((female)) ((breast feeding))