

## Oxytocin - The feel good hormone

I have recently been on a conference about oxytocin. This hormone is best known for the let-down reflex when breast feeding, but it has a major role as THE feel good hormone. And guess how you stimulate its release? Through chocolate, obviously. Seriously, eating is a major way to help us feel good. But also, through touch, and as a society, we may be getting less of it.

Over the past few decades attitudes towards touch have changed. While few question the importance of touch for the healthy development of newborns, infants and young children, something unfortunate begins to happen when our children start school. They learn to fear touch.

Some of this learning comes from parental cautions about not allowing strangers to touch you. But, mostly, children learn by example. What they see is that no neighbour, teacher, minister, adult friend or, sometimes, even relatives are allowed to offer them affectionate touch.

Then it is on to adolescence where, just as the hormonal storm whips up our need for touch to hurricane force, the “don’t touch” messages

take on a new level of urgency. We learn the terrors of touch that results in pregnancy, STDs, date rape, or being called Gay.

Finally, after entering the workforce, we encounter institutional policies about sexual harassment that tend to frown on, if not outright ban, all touching.

What a world we have created. We are taught not to hit, but not how to caress. The media bombards us with images of abusive touch and sexualized touch, but not affectionate or sacred touch. In a society where touch is pathologized so early and so often, it is virtually impossible to grow up without accruing a wide array of unconscious negative and defensive responses to touch.

Fortunately, recent science has established the fact that touch is good for us. While that may come as no surprise to you and me, research that describes the underlying physiology of touch is a validation of our experience. We now know exactly why massage makes us feel good.

*Continued top of next page*

Wishing you a spring in your step,

*Regina Dengler*



### In this issue

#### On-Site Massage

Touch science  
Stress relief for nurses

#### Massage with a difference

Massage after surgery  
Get it moving with massage  
Massage for weight loss?  
Massage in intensive care

#### Manual Lymph Drainage

Does MLD add to treatment?  
Leg oedema after uterus cancer  
Recent feedback



## Touch Science

Within seconds of receiving positive touch, two indisputable and totally involuntary reactions occur. The first is that the bloodstream gets flooded with oxytocin, the feel-good hormone. The second is the activation of the parasympathetic nervous system (PSNS), otherwise known as the relaxation response.

Oxytocin immediately makes us feel calm and connected in empathetic ways to both our internal and external environments. When the PSNS relaxation response is triggered, our bodies move into healing mode where digestion occurs, organs repair and our immune response is activated. Significantly, when the PSNS is stimulated, the stress response (SNS: Sympathetic Nervous System) always diminishes. The two systems are complementary.

A little touch goes a long way. Traditionally, the benefits of on-site massage were always framed in terms of increased productivity and morale along with reduced stress and absenteeism. Unfortunately the evidence behind such claims has always been sketchy at best. I have been hunting for studies confirming this since I qualified, and there are a few, but ... When filtered through the lens of touch science, all of these outcomes make sense.

Consider these impacts of positive touch:

- Massage/touch brings our minds and bodies back into the present moment, which is where, as the mindfulness experts keep telling us, all of the best decisions are made.
- Because massage stimulates the relaxation response we know that relaxed employees are focused, healthy and happy workers.
- The immediate oxytocin boost provided by a massage results in an increase in morale and collaboration.

Now, every time you have a massage, be it brief, or a longer session, your oxytocin is boosted, your stress levels go down – I have not yet met anybody who did not feel better afterwards. (*Massage Magazine, June 2015*)

## Stress relief for nurses

One of the main causes of stress in the lives of people is their jobs, accounting for 35% of work related ill health and 43% of days lost in 2014/15. The occupations and industries reporting the highest rates of work related stress remain consistently in the health and public sectors of the economy with nursing being the most stressful profession in the health services. (*HSE, October 2015*). Obviously massage does not address organisational causes of stress, but it helps individuals to reduce levels of stress, as the following study on nurses demonstrates.

Sixty-six intensive care nurses in Isfahan, Iran, were studied in 2013. 33 nurses received a 25 minute massage twice weekly for 4 weeks, the other 33 were the comparison group. Both groups filled in an Occupational Stress Questionnaire before, immediately after, and 2 weeks after the massages. Even two weeks afterwards the nurses who received the massage were significantly less stressed than those who did not. (*Iran J Nurs Midwifery Res. 2015 Jul-Aug;20(4):508-15*).

This is very interesting as it is thought (according to the HSE) that the main causes of stress for health professionals are high workload, lack of managerial support and organisational change. However, even a short time de-stressing and dealing with the physical manifestations of stress (tension!) can make a big difference to the stress levels of nurses, and therefore, ultimately improve quality of care for patients.

*A little touch goes a long way*

The Oxytocin picture on the previous page is by Sarah Bands, commissioned for the Oxytocin conference organised by the ARM.



## Massage after surgery

Recently two studies were published on the benefit of hand massage after surgery.

The first study compared two occasions of pain relief medication after orthopaedic surgery on 24 patients. Once they received a 5 minute hand massage as well pain killers, and on the other occasion they just received the medication. It was found that patients were more satisfied with the pain management when they received the brief massage, rather than the pain medication on its own. (*Orthop Nurs.* 2015 Jul-Aug;34(4):227-34).

Another study examined the effect of hand massage on pain in patients in intensive care after heart surgery. Forty adults received either a 15 minute hand massage or, as a control, 15 minutes hand holding 2-3 times within 24 hours. Patients who received the massage reported less intensive pain. The hand massage also decreased muscle tension, but this did not affect the vital signs (blood pressure, heart rate, breathing and temperature). (*Pain Manag Nurs.* 2015 Jun;16(3):354-66).

## Get it moving with massage!?

A recent study looked at the effect of connective tissue manipulation on people with chronic constipation. All 50 participants of the study were given lifestyle advice, and half also received massage. Participants were assessed, before and after, with the Constipation Severity Instrument (sounds painful, but it's a questionnaire), plus other questionnaires. It was found that the constipation improved (do we need to be more specific?) in participants who received the massage, and their quality of life increased as well. While lifestyle advice is important for people with chronic constipation, massage is likely to get things moving. (*J Manipulative Physiol Ther.* 2015 Jun;38(5):335-43)

Connective tissue manipulation is effectively skin rolling, an ancient massage technique. This aims to move the various layer of our tissues against each other to make sure that they are not stuck together, thus causing restrictions.

## Massage in intensive care

Researchers wanted to find out whether whole body massage is safe and effective for patients at an intensive care trauma unit. 54 trauma patients received a 45 minute whole body massage by a family member. This was compared to 54 patients receiving normal care. A nurse measured the vital signs, consciousness (with the Glasgow coma scale) and arterial blood gases (such as oxygen saturation) before, one and three hours afterwards. Blood pressure, pulse and breathing rate improved in the massage group, so did oxygen saturation, PH and consciousness. The massage did not affect any of the other measurements negatively. (*J Clin Diagn Res.* 2015 Jun;9(6):UC05-8). This was a whole body massage for very ill patients, given by family members. It does show the power of caring touch.

## Massage for weight loss?

Wouldn't it be good if, instead of sticking to a diet, we'll have a few massages and the pounds drop off... Unfortunately it does not work like that. However, there is some evidence that massage supports a weight loss regime. A Japanese study looked at an overall health care programme for mildly obese women. It consisted of diet, walking, stretching, and massage for 3 months a year for 3 years. After 3 months most participants lost weight and were generally healthier. (*J Tradit Complement Med.* 2015 Jan 22;5(2):88-95) In another study slightly overweight people with high blood pressure were given acupuncture massages. 21 people received massage, compared to 21 who received blood pressure medication. In both groups the blood pressure went down, but in the massage group more so. Even though the participants did not loose any weight, blood fat and body fat percentage improved more for the massage group. The authors conclude: "Moreover, the relapse rate of the patients in the observation group, who have been *cured*, is also *obviously* lower than that of the control group." (*Int J Clin Exp Med.* 2015 Jul 15;8(7):11727-33)



## Does MLD add to treatment?

More than one in five women develop lymphoedema after breast cancer treatment, either from the surgery or the radio therapy. Lymphoedema, as you surely know from the study of this newsletter or my website, tends to deteriorate if not treated. It is also uncomfortable, often feels heavy and is generally a right nuisance. In practice the main treatment (if you are lucky) is compression, skin care and exercise. There should be an intensive phase to bring the oedema down, and a maintenance phase to keep it down. I firmly believe that MLD brings further benefit. This has been cautiously confirmed by the gold standard of evidence: a Cochrane Review.

(Cochrane Database Syst Rev. 2015 May 21;5:CD003475). This is the conclusion: "MLD is safe and may offer additional benefit to compression bandaging for swelling reduction. Compared to individuals

with moderate-to-severe breast cancer related lymphoedema (BCRL), those with mild-to-moderate BCRL may be the ones who benefit from adding MLD to an intensive course of treatment with compression bandaging." As an aside, lymphoedema of the affected arm is the most common oedema after breast cancer treatment, but women can also have lymphoedema of the breast or chest wall – where MLD is essential because compression is much more difficult.

## Leg oedema after uterus cancer

Surgery for endometrial cancer may need to be extensive, depending on the stage of the cancer. It can include the removal of lymph nodes in the pelvis and near the aorta. What has not really been appreciated is that this can lead to lymphoedema of the legs (labia and/or vulva). A study in Gynaecology Department of the Ohio State University investigated the occurrence of lower extremity (leg) oedema in

women treated for womb cancer in their department. Of the 404 women surveyed 305 responded with information on leg swelling. 108 women, 35%, reported swelling, but only 68 (22%) with swelling had been diagnosed with lymphoedema. The most commonly reported symptoms were tightness, pain, tenderness and

### Recent feedback

*I arrived with a back I couldn't bend... The reasons? I don't know, I didn't do anything odd with it. After a deep massage, and it was getting worse before it got better – I was cured. And I haven't looked back since.*

Margery, Newark.

*I love your massages. They make me feel in expert and kindly hands. And your advice and comments are always helpful. After a session I feel good for a day or two. Unfortunately, my shoulder is not improving, in fact is sometimes quite painful. After the next session I'll try something else to see whether that will help with my shoulder.*

*... That was a very helpful session, thank you. I'm sure I will be back sometime soon, and I will certainly recommend you to friends.*

Di, Mapperly, Nottingham

heaviness. Only 8% of survey respondents were educated about the possibility of lymphoedema after surgery. (Int J Gynecol Cancer. 2014 Oct;24(8):1507-12). It is unlikely that a third of women after hysterectomy develop lymphoedema, but the true number is not really known. For women undergoing extensive surgery with the removal of lymph nodes the incidence has recently been estimated with 23%. (Gynecol Oncol. 2015 Oct;139(1):160-4). What is my point here? I am truly shocked by the figures – and how little I hear from those women. There is a similar issue for men after prostate cancer.