

# SPA THERAPY WELLNESS NEWS

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## Understanding Pain

By Nicole Brown,  
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Last newsletter I left off talking about Neuromuscular Therapy and the theory of pain. In this newsletter I would like to continue with the topic of the very important pain-spasm-pain cycle and contraindications of Neuromuscular Therapy.

Every muscle in the body has an individual tone setting. This means that some muscles are tighter than others. When we have an injury, the muscles around the injury can keep a heightened tone for many years afterward. We refer to these areas of tightened muscle as the areas where we hold our tension. This tone setting operates even when we are not using our muscles. For example, when we sleep, some muscles still retain their tension during the night. These are the muscles that move in and out of pain. Effective Neuromuscular Therapy permanently lowers the tone setting in the muscles, helping you stay out of pain.

Nerve cells must reach a threshold in order to send a pain signal. This means that the muscle can be a little bit tight without the nerve cells sending any pain signals. However, if the muscle tightens any more, the nerves will be pushed over their threshold and start sending pain signals.

When we become stressed, our sympathetic nervous system slightly tightens all of the muscles in our body. This is why we experience more pain when we are stressed. Because stress is often unconscious, we may not notice, or understand, why our muscle pain is coming and going.

The pain-spasm-pain cycle is the chronic root of pain. First, an injured muscle sends pain signals to the spinal cord. The first reaction to pain is always to tighten up, so the spinal cord sends a message to the muscle making it contract even more. This increased tension squeezes the vessels that bring blood into the muscle. This reduced blood supply means that the muscle runs out of the energy that it needs to relax. The muscle needs ATP (adenosine triphosphate) for the muscle cell to relax. A reduced blood supply also means that waste products are not washed away, so acids build up around the muscle tissues, causing increased tissue irritation. These increased pain signals are then sent to the spinal cord and the process continues.

When we are massaging the muscle we do three things:

1. Manually loosen and lengthen the muscle.
2. Increase the blood flow to the muscle, flushing fresh blood to the area.

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3. Numbing the muscle. The numbing effect occurs in the spinal cord. It is caused by the secretion of enkephalins. These chemicals block signals in the spinal cord - both sensory nerves sending pain, and motor nerves telling the muscle to tighten. When these chemicals are created the muscle is numbed, and the muscular tension is inhibited.

These three factors all contribute to break the pain-spasm-pain cycle.

There are a few cautions and contraindications for receiving NMT and deep massage.

1. Acute disc injuries like; slipped discs, ruptured discs and herniated discs. After a few weeks it is usually safe and helpful to work on the muscles around the area.
2. Any joint or muscle that is acutely inflamed. This is characterized by being painful, hot, red, swollen or mushy. Rest, Ice, Compression and Elevation should be applied here.
3. Acute, undiagnosed injury or pain is to be especially avoided, such as:
  - Initial inflammatory stage (one to three days after an accident).
  - Post-traumatic concussion (hit your head/disoriented after a fall).
  - Area of cancer (energy work is appropriate).
  - Occluded vertebral or carotid arteries.
  - Severe colds or flu.
  - Varicose veins.
  - Edema (lymphatic drainage is appropriate).
  - Skin lesions, cuts, rashes.

Getting a massage is the first step in to relaxing and relieving pain. Getting a massage should not be painful. If it is painful, please communicate to the therapist so that we may adjust our pressure. It also indicates the areas we need to work on or around. There will be tender areas, numb areas, tight areas, all providing different sensations that may or may not cause pain. Either way, we need to work within your pain tolerance so the muscles are allowed to relax, which is essential for an effective massage.

If you have any questions about massage or which

modality is right for you, feel free to call our office and I will answer any questions you have.

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## Beyond Organic- The Biodynamic Collection

By *Audrey Moore*  
*CA Certified Massage Practitioner, Spa Manager*  
*Skin Care Therapist*



Biodynamic farming originates from a balanced, holistic view of the earth. The farming practices regard the farm and the plants as a self-supporting ecosystem that lives and breathes. It produces fruits, vegetables, and herbs that are unusually high in nutrients and active compounds. Eminence Organic's Biodynamic skincare collection uses these potent ingredients for pure and results-driven skincare. Biodynamic products are 40% more effective than organic products alone!

From Eminence's Biodynamic philosophy: "Seeds are planted and crops are harvested following the lunar cycle so that when the tides are high, roots receive the most moisture and goodness. As an alternative to harsh pesticides, the farm uses herbal teas and plant friendly honey traps from local bees as natural insect repellents ensuring that all Biodynamic® ingredients are farmed as naturally as possible. Biodynamic ingredients are void of all chemical fertilizers and pesticides. Only natural medicinal herbs and mineral composts are used to enhance the soil and ignite powerful growth forces in the plants from roots to tips."

We have seven Biodynamic skincare products at Spa Therapy. Here are some favorite picks:

**Bearberry Eye Repair Cream-** Our best-selling eye cream! Ultra-hydrating, with bioactive ingredients to nourish the skin around the fragile eye contour area. Meadow eyebright, hop and bearberry help to reduce the visible signs of aging. Brightening, toning, and firming ingredients make this our favorite eye cream.

**Facial Recovery Oil-** Toning and hydrating oil created with herbs and nourishing oils to soothe and renew sensitive and aging skin. The oil feels luxurious, and is beneficial for all types of skin, including oily and acneic. Heals and evens problem skin, and soothes acne and sensitive skin types.

Hawthorn Tonique- A refreshing toner for dehydrated, irritated and sensitive skin. Gives skin a revitalized appearance. Hawthorn, chamomile and marjoram reduces the appearance of skin irritation.

Give the Biodynamic Collection a try with our Sensitive Skin Facial! Created especially for sensitized, reactionary skin, this is an anti-inflammatory, healing, and repairing facial.

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## Corrective Massage

By Jennifer Nagy-Cordray, BS  
California Certified Massage Therapist  
Skin Care Therapist



The one thing I am asked the most is what is corrective massage? Corrective Massage Therapy is designed to correct or counteract harmful or undesirable muscle imbalances and body posture. When the repetitiveness of our occupation or activities starts to cause us pain it is because certain muscles are overused and the others are underused. The posture we are most comfortable in can limit our body's potential and full range of motion causing stress on the musculoskeletal system.

Massage therapies are done at different levels depending on the needs of an individual. There are several types of massage therapies as well. Corrective massage therapy is not merely a regular form of massage procedure. It actually involves techniques that improve a person's health to optimum levels. The most common conditions that are treated with the use of corrective massage therapy commonly include body pains, chronic and sport injuries, acute injuries. Corrective massage can also help in treating postural dysfunctions and muscle imbalances, specifically to those individuals who are seated for long periods, performing repetitious movements, or inactive for long periods every day.

Muscle imbalances when subjected to prolonged repetitive activities or static postures affect the length-tension relationship of muscles making them long and underactive. This is also known as reciprocal inhibition these muscles are reflexively

inhibited/weak due to its activated antagonist muscle. Prolonged muscle elongation can lead to "stretch weakness" and postural changes.

Prolonged shorten muscles or "tightness weakness" can become overactive a process also known as adaptive shortening. This leads to a dysfunctional length-tension curve making the muscle readily activated and weaker over time. This leads to the development of painful trigger points. These short and tight muscles will show a decreased in muscle length and strength as active fibers are replaced by non-contractile tissue (i.e. scar tissue) to help counter the pulling forces. This is where a talented massage therapist, such as the staff at Spa Therapy Wellness Center, can implement massage techniques to break up this tension and reduced the amount of non-contractile tissue that forms.

### Left/Right Muscle Imbalances

Muscle balance is defined as the relative equal length and muscle strength between the agonist and antagonist muscle groups. This is necessary for optimal function and movement. Muscle balance is also referred as to the strength of the contralateral (right versus left) muscle groups. If your body has right/left limitations it will find an alternate way of moving and it will usually take the path of least resistance, so tight and facilitated muscles are called upon first in a movement pattern, this is called dysfunctional movement.



For the athlete this means decreased stability, range of motion, flexibility, strength, power, speed and performance. And an increased chance of injury. For the everyday person this means not being able to do the simple daily activities such as gardening, vacuuming, picking up the kids, walking up and down stairs or getting up from a sitting position. With some basic exercises and stretches, you can at least slow down the process of developing dysfunctional movement patterns.

There are several benefits that corrective massage therapy brings. Relieving muscular pain is only one of the many benefits you can get from the therapy. The entire massage procedure improves the blood

circulation of the individual. With this, injuries are healed in shorter periods. If there are muscle injuries, the healing of torn muscles would be sped up. The process actually helps in tissue repair, especially with soft and deep tissue techniques.

Corrective massage therapies are not only used to treat existent bodily damage. This is also used to prevent injuries to the body. The massage sessions actually help in maintaining the integrity of the tissues. Remember that massages help in improving blood circulation, bringing proper amount of blood and oxygen to all body parts. This is actually what helps improve the muscle's integrity and the condition of the body as a whole.

Aside from the physical benefits that corrective massage brings, it can also help in improving a person's psychological health. Massage, in general, is a good way to relieve stress and anxiety. When proper massage techniques are applied to appropriate parts of the body, it causes the muscles to relax as more oxygenated blood is distributed to the rest of the body in optimal levels. The brain is also made to function at its optimal level, thus decreasing the brain activity, bringing the body to a more relaxed state.

Once the brain and the body are relaxed, anxiety is decreased. It allows the individual to be more mentally alert. He or she would also be more aware of his body and the environment. As an overall impact to the person's psychological state, massage therapy makes the person appreciate himself a lot more. With this, his sense of well-being is increased, allowing him to function better as an individual.

There are different techniques used to provide corrective massage therapy here at Spa Therapy Wellness Center. This includes deep tissue and soft tissue massage, trigger point, scar tissue and myofascial release, muscle energy techniques, positional release, lymphatic drain and many others. The technique to be used during the therapy would depend on what the client would need to treat his or her condition. You would want to get full benefits when you undergo corrective massage therapy. It is important that you receive the therapy from a professional or trained practitioner.

## **Designing Therapy That Include Corrective Exercise**

When incorporating corrective exercises into therapy, it is important to select exercises that will have the most impact in alleviating the pain. The results of your musculoskeletal assessments will guide your therapist to make the most appropriate exercise selections. For example, if an assessment reveals that your client has excessive thoracic kyphosis (i.e., an overly rounded upper back), then a beneficial initial corrective exercise for this person would be a self-myofascial release technique to help recondition the muscles and soft tissues of his or her thoracic spine/upper back (e.g., foam roller on Thoracic Spine). You would then progress to a stretching exercise for the front of the torso to help promote extension in the thoracic spine (e.g., step back with Arm Raised). Finally, you could incorporate an exercise to strengthen the upper-back muscles to aid in pulling the spine upright (e.g., straight-arm raised). The foam-roller and stretching exercises could be included as part of the warm-up before working out, and the strengthening exercise could be integrated into the workout as part of a super-set with another upper-body exercise.

To achieve the maximum benefit from corrective exercises, you must perform them on a regular basis. We will help you remember what to do by providing written instructions documenting exercise-technique cues, frequency and duration, and active demonstrations. This is why continuing corrective massage or corrective massage monthly maintenance is so important. We will review your exercises monthly, make changes when necessary as you progress, and make sure your motivation for corrective change is encouraged.

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# Why Exfoliate?

By Jenny Jenson  
Skin Care Therapist



## What is Skin Exfoliation?

The objective of exfoliating is to remove dead skin cells from the skin's surface.

## Why is Exfoliation Important?

Exfoliation is considered one of the most important techniques that you can perform on your skin to resolve certain skin care problems as well as to achieve healthy and glowing skin.

## What Skin Care Problems Does Exfoliation Resolve?

### BLEMISHED OR ACNE SKIN

Exfoliation should be the main focus of blemished or acne skin. So often, we are told to dry out the skin with harsh acne products. Although this will destroy acne-causing bacteria, it tends to dry out the skin, and then results in not only irritated skin but also in future breakouts. Why? Because as you over-dry the skin, you create surface dry skin cell buildup. This buildup then acts as a barrier to trap oil in the skin, then starts a cycle of new breakouts.

### POST-BREAKOUT RED/DARK MARKS

Often, the real concern is not so much the actual blemishes, but rather the red, dark marks that remain on the skin long after the breakout has healed. The key to fading those post-breakout marks is to increase your exfoliation. The more you remove the surface damaged skin tissue, the more you are ridding the skin of the dark marks and encouraging the formation of new healthy (non-scarred) skin tissue. The result is more even-toned skin with less scarring.

### CLOGGED PORES

Clogged pores aren't infected blemishes, but rather blackheads, small whiteheads, and little clogged bumps on the skin. The same rules apply as with blemished skins. The more you remove surface dead skin cells (usually caused by using harsh, drying products), the less oil will stay trapped and congested in the pores.

### HYPERPIGMENTATION

These are the brown spots that come from age, pregnancy, hormonal changes, and genetics. These spots tend to become more apparent and darker as

the skin ages. Exfoliation is beneficial for breaking up the pigmented cells to allow them to fade. Combined with a skin lightening agent, such as Vitamin C, exfoliation will help accelerate the fading process.

### DRY SKIN

Especially in the winter, exfoliation is very important. So often when the skin is dry, we tend to load up on heavier creams to compensate for the dryness. But dry skin means you have dry skin cell buildup. And the more you layer on the heavier creams, the more you are trying to re-hydrate dry dead skin cells! This makes no sense! Instead, increase your exfoliation to remove the dry skin cells, and then moisturize the new skin cells, resulting in a moister skin.

### THOSE WHO DESIRE SMOOTHER SKIN

One way to instantly smooth the skin is to exfoliate! When you rid the skin of the surface dry dead skin cells, you create a smoother appearance.

### THOSE CONCERNED ABOUT ANTI-AGING

The skin's natural exfoliation process slows as the skin ages, resulting in an accumulation of dry dead skin cells. As you increase your exfoliation, you are tricking the skin into acting young again!

### How Does One Exfoliate?

THERE ARE 2 TYPES OF EXFOLIATION. PHYSICAL OR CHEMICAL:

Physical Exfoliators mean you have to do the work. They can be done using facial brushes, sponges and mildly abrasive scrubs. Clarisonic is the best facial brush on the market, which gives you the healthiest skin without any irritation. Try the Eminence Strawberry dermafoliant for a gentle scrub that can be used daily. Or for a more aggressive scrub, try the Eminence Pear and Poppy Seed Microderm Polisher, which can be used once to twice weekly.

Chemical Exfoliators do the work for you. You apply it, leave it on your skin, and it works to dissolve the dry dead skin cells. These exfoliators include ingredients such as Glycolic Acids, AHAs and BHA, and enzymes such as Pumpkin, Papaya, and Pineapple, and Retinol. Our BION skin care line offers a variety of different Glycolic products. When choosing a product with AHA or BHA, AHAs tend to be applied to skin dealing with skin sun damage, dryness and thickness and should have a concentration of at least 5-8% and a pH level of 3 or 4, if the packaging doesn't say, look for an

ingredient listing placing it 2nd or 3rd. BHA is actively used to deal with blemished and acne, and need to have a concentration of at least 1-2% and a pH level of 3, look for an ingredient listing placing it at the middle. Please ask me for my recommendations for your skin type. If you feel like your skin is a little sensitive then try the Eminence Yam & Pumpkin Enzyme Peel 5% which can be used once to twice weekly by leaving on skin for 10 minutes. For severely sun damaged skin, a Retinol product will work at a much greater depth of the skin. It operates at a cellular level and actually, has the capacity to modify irregular skin cell behavior. Try BIONs A-C-E cream to use daily after cleansing and under moisturizer/SPF application.

### **Which Professional Spa Exfoliating Treatments Are Beneficial?**

At Spa Therapy we offer a variety of different Exfoliating Treatments for any type of skin.

Looking for a deep Physical Exfoliation, Try our Microdermabrasion treatment, which offers a deep exfoliation crystal-free.

If you have sensitive skin, but still looking for an effective treatment, upgrade your Eminence Facial with our professional strength Yam and Pumpkin Peel 20%, or the Arctic Berry Peel.

Our Glycolic peels will give you the greatest result. This is best done in a series of 6, performed once a week. Our Glycolic Peel is 30% with a pH of 3.0. It is best for sun damaged, dryness, thickness or blemished skin.

The Bottom Line on Exfoliation

The goal is to exfoliate your skin as much as possible with minimal irritation.

**\*It is always best to schedule a consultation before you choose to try any of the Chemical Exfoliators.**

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## **The Scoop On Stem Cells**

*By Jennifer Nagy-Cordray, BS  
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Skin Care Therapist*



Over the past two years, there have been an increased number of articles on stem cells and their use in skin care products. This information can be

confusing and sometimes misleading. Before we can adequately talk about the use of stem cells in skin care products, we must first define what a stem cell is and its function and purpose in any organism.

### **Defining Stem Cell**

*Wikipedia defines stem cells as, “Stem cells are cells of the body (somatic cells) which can divide and become differentiated.”*

Stem cells are found in both plants and animals. They divide and can differentiate into a range of cell types.

### **In Animals**

In animals, when an egg is fertilized, a living cell is formed with a full complement of DNA. This cell then divides into two identical daughter cells. Until there are 10-12 cells, each of these cells has the potential to become any specific tissue cell type in the future mature adult, but only for that specific organism. They are described at this stage as pluripotential cells.

When an organism grows, stem cells specialize and develop specific functions in many tissues to replicate replacement cells as needed for different cell types in that tissue. They have now lost pluripotential, but because these stem cells are not yet fully differentiated, they can modify and become some kind of specialized cells for that tissue. For example, skin stem cells may replicate and differentiate into any of the various skin cell types, but may not have the potential to become nerve cells.

Individual cells have a finite life span, and when they die off, they are replaced with new cells. Some blood cells live for about four months, while some others live more than a year. Skin cells live only about two or three weeks. Depending on age, between 50 and 70 billion cells die each day in the human body. Organisms use stem cells to replace many of these and the damaged cells that must be removed.

### **In Plants**

On the other hand, stem cells from plants can be cultured in large quantities, and the cells do produce biological products that are released into the culture medium. These “culture medium bio-products” do include some growth factors, but these growth factors are usable only by their plant cells. Some of the byproducts released into the culture liquid may

have antioxidant properties. Sometimes, these antioxidant properties are found in higher quantities in other plant materials.

### **Clarification**

Stem cells do have a real purpose in both function and restoration in the organism in which they originated. Only a human stem cell taken from that individual would have the DNA of that individual, and it is not feasible to keep stem cells alive in a jar of topical product formulation. Similarly, the growth factors in plant stem cells are only usable by their plant cells.

Therefore, a stem cell's primary function can only be utilized in its organism and not in a cosmetic product. That being said, plant stem cells can serve antioxidant functions in cosmetics.

### **Stem Cells for Skin Care**

Swiss-apple stem cells are widely known as one of the first and most effective plant stem cells to be used in skincare, thanks to their ability to heal themselves quickly and thoroughly. However, many others have also proven to be beneficial in both products and treatments. Such plant stem cells include butterfly bush, which helps to preserve collagen; echinacea, which balances and firms the skin; edelweiss, which helps rejuvenate damaged cells and visibly reduce fine lines and wrinkles; gardenia, which helps increase collagen production and prevents collagen degradation; gotu kola, which helps hydrate skin and improves elasticity; grape, which offers regenerative and wound-healing properties; lilac, for its anti-inflammatory and oil-controlling benefits; and pennywort, which helps even skin tone. Plant stem cells can be thought of as super-antioxidants and must be applied every day to maintain the skin's youthful qualities and ability to protect itself from the daily threat of oxidative damage.

### **Spa Therapy Stem Cell Products**

Plant stem cell technology is increasing in popularity to capture innovative anti-aging benefits in natural skin care products. This ground-breaking technology can be found in our most recent Age Corrective Night Collection. Our Argan Stem Cell Complex features stem cells from Moroccan argan trees, one of the oldest species in the world, that can

survive with minimal rainfall and have the ability to regenerate after long periods of drought. Eminence Organic Skin Care Founder, Boldijarre Koronczay spoke with Elle Magazine, "To be able to survive that long, it has developed incredible self-repairing abilities. So (its stem cells) can teach your skin cells to regenerate in the same way". Our Eminence skin-care line offers a collection that aims to increase collagen. Featuring a natural retinol-like complex that includes ingredients like chicory and tara tree, and the stem cells of Swiss green apples, the products we offer are coconut age corrective moisturizer, bamboo firming fluid, neroli hydrating mist toner, neroli age-corrective eye serum, and our bright skin collection with African potato and tara tree stem cells, to name a few

### **Supporting Our Green Mission**

In addition to offering anti-aging benefits for the skin, plant stem cells also provide a useful way of obtaining sustainable extracts, says Andrea Weber, head of research and development at the Babor Research and Innovation Centre (Aachen, Germany). "Once a plant cell culture is established in the lab, there is no need to harvest more plant material," she says. "Thus, we can get extracts from very rare or even highly protected plants without destroying our natural resources." And because all surrounding factors, nutrients, light, and agitation are controlled, the quality of the extracts is consistent. What's more, green biotechnology has advanced and companies can now extract stem cells in an eco-friendly way while ensuring the purity and potency of the plant extract. "The highest, most active molecules can be isolated in a larger quantity with fewer plants to deliver more efficacious, highly potent ingredients—up to a thousand times higher in potency than in plants in nature," says Nicole Rechelbacher, president of Intelligent Nutrients. "Plant stem cells are 100 percent free from herbicides and pesticides. Also, farming is not required, so no significant contribution to greenhouse gases is produced from this process, and there is a drastic reduction of water and solvent use because preservatives are not used in the extraction process."

*Ref.; James Beckman, M.D., plastic surgeon and founder/director of R&D for Therapon Skin Health.*

*Andrea Weber, head of research and development at the Babor Research and Innovation Centre, Aachen, Germany.*

*Nicole Rechelbacher, president of Intelligent Nutrients*