

Get Healthy, Stay Healthy

March
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with Kinetic Health

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Treating Osteoarthritis Of The Knee

By: Dr. Brian Abelson DC.



Osteoarthritis is the most common form of arthritis of the knee. This is a degenerative condition where the articular (surrounding) cartilage of the knee joint gradually breaks down. Osteoarthritis of the knee is characterized by pain, swelling, morning stiffness and decreased range of motion.

Articular cartilage of the knee is quite different from other soft-tissue structures in that it does not receive nourishment directly from the arterial blood flow. Instead, the articular cartilage of the knee is completely dependent upon the pumping actions generated by physical movement to supply its nourishment. As you move, the ligaments and tendons surrounding the knee joint work to pump nutrients and blood (oxygen) to the cartilage of the knee. Degeneration of the cartilage starts to occur... *Article continued on page - 2*

Reducing Back Pain During Pregnancy

By: Dr. Evangelos Mylonas DC.



Back pain during pregnancy is a common complaint and it has been estimated that between 50 to 80 percent of women will experience back pain at some point in their pregnancy. Pregnant women typically experience lower back pain where the spine meets the pelvis and at the sacroiliac joints.

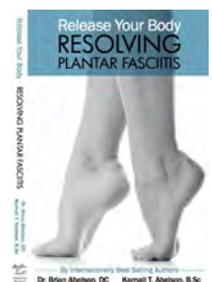
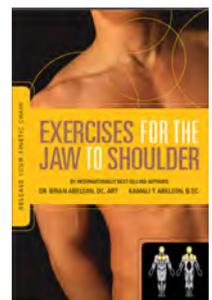
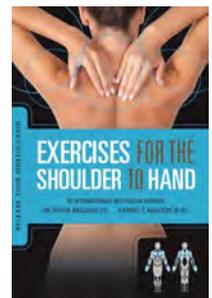
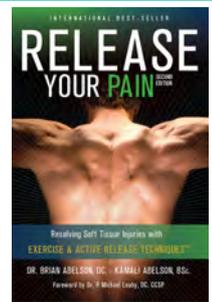
Studies have shown that back pain usually occurs later during the pregnancy as the baby develops, and its weight increases. However, back pain can be experienced at any time during pregnancy, from the onset through to the end of the third trimester. It is no surprise to most women that their back starts to hurt as the baby grows, they're gaining weight, their center of gravity shifts, and their hormones are causing the ligaments in their pelvis to loosen. What many of our patients are surprised to hear is that their back pain can be treated safely and effectively **throughout their pregnancy** (Numerous medical studies support gentle Chiropractic mobilizations and soft-tissue therapies for the reduction of lower back and sacroiliac joint pain during pregnancy)... *Article continued on page - 3*



Calgary International Salsa Congress March 27-30

We are always talking about hip activation, now is your chance to give it a try. The 2014 Salsa congress is coming up fast. We will be attending again this year, taking photo's and video. This is a great event that is really worth checking out. We are getting our dancing shoes ready, so please come join us.

<http://www.calgarysalsacongress.com>



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publications at:
www.releaseyourbody.com

Osteoarthritis Of The Knee Continued (continued)

when anything disrupts this flow. Any restriction in muscle or soft-tissue structures exerts a compressive force internally which then inhibits fluid exchange. This decreases the amount of oxygen that can get to the cartilage, resulting in several enzymatic changes that accelerate the arthritic degeneration of cartilaginous structures, with the upshot being an acceleration of the arthritic process.

Using Soft Tissue Techniques To Treat Osteoarthritis Of The Knee

Anything you can do to decrease the biomechanical stress on your knees will help to alleviate or prevent an arthritic condition. Soft tissue techniques (ART, Graston, Fascial Manipulation) improve knee function by removing the biomechanical stresses on your knees. It does this by removing soft-tissue restrictions that weaken the supporting structures. A short, contracted muscle is a weak muscle that cannot properly support your knees. Your muscles act as shock absorbers, and weak muscles make poor shock absorbers.

Soft tissue techniques can also help to correct muscle imbalances. Muscle imbalances cause numerous alterations in gait patterns. These alterations in gait create friction syndromes, increase inflammation, and accelerates the process of degenerative arthritis. By removing adhesions from one muscle, you automatically reduce the stress on its antagonist (opposing muscle), which no longer has to compensate for the weaker muscle.

It is easy for us to see the numerous biomechanical compensations that are occurring when we perform a biomechanical assessment on a patient with an arthritic knee. These compensations perpetuate or accelerate arthritic conditions.

Once these compensations are removed with soft tissue procedures, the patients usually experience immediate functional improvements. They will be able to perform a multitude of daily activities that they may not have been able to perform before – such as climbing stairs or going for long walks. Although the degree of improvement varies based on the amount of degeneration, it is normal to see significant functional changes after just a few treatments.



Exercise in Treating Osteoarthritis

Exercise is a very important tool in the prevention of osteoarthritis of the knees. Patients often ask, "Won't exercise cause **more** wear and tear to my knees?" On the surface, this seems like a logical conclusion. In fact, I commonly hear doctors saying, "Take it easy; be careful not to walk too much; and whatever you do, don't jog or run – it will lead to all sorts of arthritic conditions". Seems logical, but in reality, it is just not true. Research has shown that moderate exercise does **not** increase the risk of developing osteoarthritis, even in the older population. It is lack of exercise that does the damage to your body. Avoiding exercise is one of the worst things you can do when you are trying to heal arthritis.

Obviously, each case must be reviewed on an individual basis. In my opinion, if your pain is coming from the osteoarthritis, soft tissue techniques, exercise, and good nutritional support should be your first choice for treating this condition.



Osteoarthritis and Weight Loss

Even moderate decreases in weight (15 lbs over 6 weeks) can significantly reduce the amount of pain caused by osteoarthritis. *Stephen Messier*, lead author of a noted study showed that "The accumulated reduction in knee load for a 1-pound loss in weight would be more than 4,800 pounds per mile walked". In other words, for every pound of weight-loss, you will find a four-pound reduction in the stress experienced in each step! That's huge!

The effect of even moderate weight-loss is especially noticeable in weight bearing joints such as the knee and hip. This can result in significant improvement in your quality of life. This is an easily achievable goal, and can help you to live a more pain-free and enjoyable life.

If you need some help with weight loss, using good nutrition, and exercise, then just give us a call. We can help!

Biomechanical Compensations

As the fetus develops, the mother's hip flexors (*iliopsoas muscle*) and hip extensor (*gluteal muscles*) are working constantly to stabilize the pelvis as the baby's weight is projected forward. This constant force increases low back curvature (*lumbar lordosis*) and places considerable stress on both the joints (lumbar facets) and the discs between the vertebra (*intervertebral discs*). This results in a loss of spinal integrity and static support for the low back.

Another compensation that occurs is for the mother's legs to become externally rotated. This can cause a muscle deep in the hip (*piriformis*) to remain in a contracted state. Depending on the individual's anatomy, this muscle could easily be the source of sciatic pain shooting down the leg. Piriformis anatomy varies from person to person, for some people the sciatic nerve passes right through the belly of this muscle, for others it passes under, or over it.

With the changes taking place in spinal curvature (*lumbar lordosis*), compensations do not stay limited to just the low back. Over time, tension travels all the way up the spine and can affect both the thoracic spine (*thoracic kyphosis*) and cervical spine (*cervical lordosis*). These postural distortions are often the cause of mid-back pain, headaches, pain down the arms (*thoracic outlet syndrome*), and other myofascial pains.

How We Can Help - Manipulation and Soft Tissue Therapy

There is considerable research to support the use of manipulation during pregnancy for several reasons. The primary reason being a relief from back pain. In one retrospective study of over 400 pregnant women, 84% of these women found relief from back pain through manipulative therapy. The same study also noted individuals who did not receive manipulation had a 300% increase in the amount of back labor. (1) Most women experience some degree of back pain during labor, but about 25% experience **severe discomfort** both during and between contractions. It just makes sense to do everything you can to avoid this pain.

Second, research has shown that there is a relationship between manipulative therapy and the length of labor. On average, women who received manipulation throughout gestation (if it was their first child, primigravida) had a 25% shorter labor time. On Average those women who already had children (multiparous), had 31% shorter labor times (2)(3)(4). The research speaks for itself, manipulation means less pain and shorter labor times.

With regards to the soft-tissue restrictions that form during pregnancy, there is a tremendous amount that can be done. We mentioned earlier that both the *Iliopsoas* and *piriformis* muscles can become tight and contracted. Both these muscles can be easily addressed with a number of gentle myofascial release procedures. Treatments can also release the structures that are involved in creating mid-back, shoulder, neck, and arm pain.

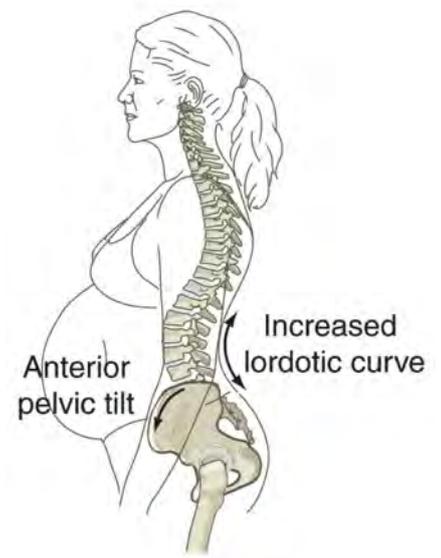
We achieve all of this through our integrated treatment approach which combines gentle chiropractic mobilizations, soft-tissue therapies, postural advice (working, sitting, and sleeping) and functional home exercise routines (stabilization exercises, strengthening exercises, and cardiovascular exercises) that are appropriate for your stage of pregnancy.

(1) Back pain during pregnancy and labor. Diakow PR, Gadsby TA, Gadsby JB, Gledlie JG, Leprich DJ, Scales AM J Manipulative Physiol Ther. 1991 Feb; 14(2):116-8.

(2) J.M. Fallon. Textbook on chiropractic & pregnancy. Arlington, VA: International Chiropractic Association; 1994: 52, 109.

(3) Fallon J.M. Chiropractic and pregnancy: a partnership for the future. ICA Int Rev Chiropr. 1990;46(6):39-42.

(4) Dooley W. Osteopathy's contribution to prenatal care. J Am Osteopath Assoc. 1946;46:6-7.



Common Causes of Back Pain During Pregnancy...

Changes in weight

Most women will gain 25 to 35 pounds during pregnancy. This places an increased load on the spine and pelvis, and adds stress to all the weight-bearing structures. This commonly causes several nerve compression syndromes, including sciatica.

Center of gravity

The center of gravity shifts during pregnancy as a result of the baby's growth and weight gain. The increase in weight is carried in the front of the body pulling the center of gravity forward. This creates numerous compensations throughout the body's entire kinetic chain.

Muscular imbalances and fatigue

As the body adapts to the weight gain and shifts in the center-of-gravity, muscles become strained and fatigued as they try to compensate for the changes in posture, and for the increase stress placed on all the joints, ligaments, tendons, and connective tissues.

Hormonal surges

During pregnancy, your body produces a hormone called *relaxin*. This hormone causes the ligaments in your lower back and pelvis area to loosen or "relax" in preparation for giving birth. These hormonal changes combined with the changes in weight, shifts in the center of gravity, and muscle imbalances can easily lead to instability and pain throughout the lower back and pelvis.

Check out our informative websites, blogs, and YouTube channel...



www.kinetichealth.ca

Welcome to our **Kinetic Health Clinic** website. Kinetic Health is located in northwest Calgary, in the community of Edgemont. Our information-rich site provides you with extensive healthcare information about the conditions we treat, our treatment methodologies, conditions we can help resolve, contact information, and information about our staff. You can also download **Admittance Forms** for Dr. Abelson, Dr. Mylonas, and our Registered Massage Therapists.

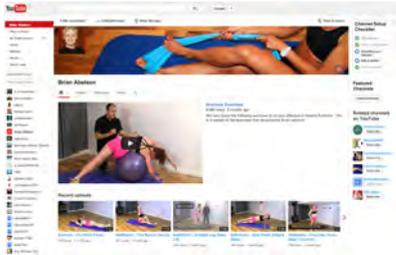
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www.activerelase.ca

This popular site is dedicated to providing you with information about one of the most effective and popular treatment methods we use in our clinical practice - **Active Release Techniques (ART)**. We bring extensive expertise in ART. Dr. Abelson was an instructor in ART for over 10 years, has co-authored the international best-seller about ART, "**Release Your Pain**", and contributed to the **ART Biomechanics Manual** that is currently used to instruct ART practitioners. Both Dr. Abelson and Dr. Mylonas are fully certified in all ART techniques.



www.youtube.com/kinetichealthonline

This is the link to our **YouTube** channel. We are constantly updating our channel with videos about new exercises, conditions, biomechanical analysis, local races (marathons, triathlon's), and even cultural events and travel. Please check us out, and feel free to *share* our videos with anyone that you think could use this information.

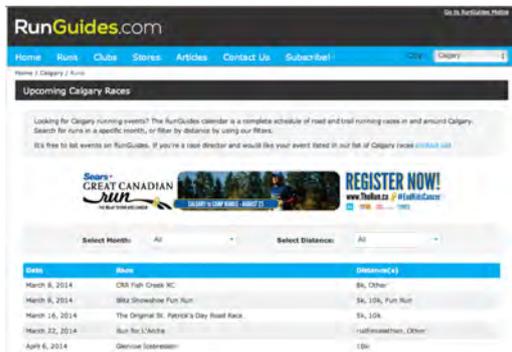


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- Release Your Pain: 2nd Edition
- Exercises for the Shoulder to Hand: Release Your Kinetic Chain
- Exercises for the Jaw to Shoulder: Release Your Kinetic Chain
- A Quest for Healing - A Story of Love

Local services, resources, and events we highly recommend.



2014 Race Schedule

Thinking of running a race in Calgary and surrounding area this next year. RunGuides.com is a good resource for upcoming events check it out online. <http://www.runguides.com/Calgary/runs>



Kinetic Health Supports Plan Canada

Plan Canada's goal is to provide children and their families with the essentials of life needed to be successful in their communities.



Calgary Comic & Entertainment Expo April 24-27

Yes, the *Big Bang Theory's* Fan Club is coming to Calgary, and we are dressing up for the event. Come join us for the 2014 Comic & Entertainment Expo. Always a sold out event, so book early. I hear Dr. Mylonas is going as Yoda! <http://www.calgaryexpo.com/blog/category/the-calgary-expo/>