

FAQs to DonTigny

General Questions

Some of these FAQs are old and may reflect my early research. If you find something that does not fit, always refer back to my home exercise program.



What is Sacroiliac Joint Dysfunction (SIJD)?

The Sacroiliac Joint (SIJ) is kind of L shaped front to back. The surface of one side of the joint (ilial) has a little bulge. The surface of the other side (sacral) has an indentation. This keeps the joint centered. The joint goes out when you are leaning forward to do something and you fail to support the front of your pelvis with you abdominal muscles. The front of the pelvis rocks down (rotating anteriorly or forward) on the front part of the SIJ (the S1 segment) and the back part of the pelvis rotates up and out on the back of the sacrum at the S3 segment. Because the S1 and S3 segments angle in different directions, and the most pressure is at S3, the pelvis slips up and out there and goes a little out of joint (subluxates). This rotation causes the ilial bulge to rise up out of the sacral indentation and flares (spreads) the pelvis.

This may tear the joint capsule, tear the long posterior sacroiliac ligament, loosens the iliolumbar ligaments and destabilizes the disks. When the front part of the pelvis moves down, the hip joints move down in relation to the SIJs and causes the legs to appear to get longer, sometimes one side more than the other. Also, when the front part of the pelvis moves down relative to the spine, it stretches the psoas muscle. If you try to stretch the psoas muscle more, you will increase the dysfunction.

To correct this condition you must move the back of the pelvis down on the back of the sacrum. Bringing the front of the pelvis up on the front of the sacrum may ease the pain, but won't give you a correction.



How common is SIJD?

In 1992 at the First World Congress on the Sacroiliac Joint Dr. Joseph Shaw of

the Topeka Back and Neck Pain Clinic reported that in a series of 1000 consecutive patients he examined for low back pain (LBP) and SIJ he found that 98% had an SIJ problem. When he addressed that problem his surgical incidence for herniated disks dropped to 0.2%.

I spoke with him after the conference and by then he had seen 2000 cases with still the same stats. The problem with Shaw's stats is that they are so good that they seem outrageous. Don't get me wrong, because I believe he is right on the money. The problem is that the 'experts' that are reporting low percentages of SIJD simply cannot believe his results and will not examine the evidence, but if they had done what he did they would have found what he found.

Here is the mind blower. In 1982 the American Academy of Orthopaedic Surgeons met in Toronto specifically to address LBP. They established criteria for testing and for the interpretation of those tests. They assumed that the SIJ was so strong as to be immune to injury through minor trauma and paid scant attention to it. They also reported that 'in spite of thorough examination they could establish a firm diagnosis less than 15% of the time.

What they did not seem to realize is that when you use their recommended tests and interpret those test in the recommended manner that you will be compelled to miss the diagnosis over 85% of the time! It's not that they are not an intelligent group, but they just have not considered all of the evidence. Boorstin once commented, "The chief obstacle to discovery is the illusion of knowledge." People are reluctant to learn what they think they already know. This is willful ignorance. Instruction is of scant value. You must instill some doubt to stimulate investigation.

I am only in my 20's, am I too young to have SIJD?

I have seen SIJD in children as young as 8 while doing scoliosis training. I remember one young boy who had a leg length difference, (long leg right) and a lumbar scoliosis. I did a simple corrective mobilization on that side, the leg length shortened, the pelvic obliquity was corrected and the lumbar scoliosis disappeared all within about ten minutes.



I've read that Sacroillitis can turn into Ankylosing Spondylitis - is that true?

It is true that Ankylosing Spondylitis starts in the SIJ joints, but there does not appear to be any relationship because SIJD is very common and Ankylosing Spondylitis is not.



I am still confused on your thoughts on SIJD. Can you help to better understand this?

With SIJD both innominates rotate anteriorly on the sacrum, up on the back part of the SIJ and down on the front part of the SIJ. It gets 'stuck' at the back part of the SIJ on the way up. This stretches the short and long posterior sacroiliac ligaments, the long more than the short. The ligament may not be torn at this time, but if it is in the stretched position for a prolonged period of time, the ligament will not be able to recover. It will stay stretched out and unstable. This is known as a viscoelastic failure of the collagen. Because of the variation of the angles of the front part of the SIJ and the back part of the SIJ, after the back part of the SIJ gets stuck, the front part of the SIJ can still move up or down. When the front part of the SIJ moves up, the leg on that side gets shorter and it looks like a posterior rotation or an upslip, but this can only happen after it rotates anteriorly. Many therapists or chiros will try to correct a 'posterior dysfunction' and will succeed in making the leg longer, but only move the front part of the joint and fail to get a correction of the stuck part in the back part of the joint. No matter if the leg looks long or short when you correct the initial dysfunction in anterior rotation, it will shorten more. The same maneuver for correction is used on both sides. You must always correct for anterior dysfunction no matter if you think it is anterior on one side and posterior on the other, or flared or a dysfunction of the pubis symphysis or any other supposed dysfunction.

Can you explain to me why you call it "Anterior" SIJD?

I call it anterior because the innominate bone rotates anteriorly (or toward the front) on the sacrum. Many practitioners used to believe (and some still do) that the innominate can dysfunction either anteriorly or posteriorly. After years of study I had to conclude that there was no such thing as a pure dysfunction in posterior rotation. The anterior dysfunction disrupts the posterior ligaments. This dysfunction in anterior rotation has several underlying subtle movements that have been misinterpreted to be an anterior dysfunction on one side with a posterior on the other, an upslip, a downslip, etc. I say it is all anterior because it all disrupts the same basic ligaments and it can all be corrected by the same basic mobilization that is by manually rotating the innominates posteriorly and downward on the sacrum.



What is an innominate?

Innominate, means without a name. The pelvic ring is composed of three bones, the sacrum in the back and two large pelvic bones on each side called innominate bones. Some people refer to them as hip bones, but this is incorrect. If you fracture a hip, you fracture the surgical neck of the femur not the innominate. The prominent crests above your hips are the crests of the ilia that are part of the innominate.



What is Sacroiliitis?

Sacroiliitis is a word meaning an inflammation (not infection) of the sacroiliac joints. Bilateral means that both sides are involved. The inflammation occurs because both joints are subluxated (slight dislocation). This means that both innominate (big pelvic) bones have moved cephalad and laterally (up and out) on the sacrum and are not functioning normally. Easy to correct by mobilize the back part of the innominates caudad and medially (down and in) on the sacrum.

Can you expand on sacroiliitis?

If the SIJD is not properly corrected, the SIJs may become inflamed. Davis and Lentle used technetium-99m stanous pyrophosphate bone scanning with quantitative sacroiliac scintigraphy in 50 female patients with idiopathic low

back pain syndrome (age range = 21-71 years) and found that 22 patients (44%) had sacroiliitis. Eight of these patients (36%) had unilateral sacroiliitis, and 14 (64%) had bilateral sacroiliitis. Of the 22 patients with abnormal scans, 20 had normal radiographs. Davis P, Lentle BC: Evidence for sacroiliac disease as a common cause of low backache in women. Lancet 2:496-497, 1978 All had low back pain. 44% were inflamed. Nearly all had normal SIJs on X-ray.



Why do interventions make me worse?

Sometimes I just don't know. All I can give you is my best guess. I can't watch you walk, or get up and down or see your posture, or give you a muscle test or see what kind of a correction you are getting or watch you do your exercises, or put my hands on you and locate the trigger points or feel the texture of your skin or anything else. My best guess is that you have been very sore for very long and have a badly inflamed SIJ that hurts no matter what you try to do for it. Have you ever had a shot of marcaine (local anesthetic) and triamcinalone (long acting cortisone) in and around your SIJ? Especially in the area of your posterior inferior iliac spine? This might quiet your SIJ down so that you can get a correction. There may be a lot of ligamentous laxity in the area and the joint may be unstable and you may not be getting a full correction and you may be doing some exercises that are not compatible with your SIJ. You may be way out of condition and lack abdominal strength.

Is it a common occurrence to see previous SIJD patients, who were successfully rehabilitated, return for treatment of another bout of dysfunction?

A great deal depends upon the severity of the original injury. You can always re-injure your SIJ if you recreate the circumstances that caused the injury in the first place. It is not uncommon for this to recur, but if you know what caused it and you are careful with your pelvic tilts especially when leaning forward you can prevent recurrence most of the time. If you know how to correct it, if it does go out occasionally and you can get it back in right away it's no big deal. It's kind of like twisting your ankle. You can, of course have an unstable joint, usually from overstretching the long posterior sacroiliac ligaments - from an injury, or from a prolonged stretch of the ligaments such as too much weight resting on the front of the pelvis and the pelvis being forced down in the front - or a softened ligament from the effects of relaxin about a week before your period or during pregnancy or menopause. Bottom line is that you must always be careful. Keep your weight down. Keep your abdominal muscles strong and use them to hold up the front of your pelvis. Practice good body mechanics. And at the least sign of low back pain do the

corrective exercises. Actually, just like brushing your teeth is a preventative exercise, do your corrective exercise every night when you go to bed just in the event that your SIJ slipped out a little bit during the day.

Are there any special considerations made in treatment and rehab when considering the actual cause of injury, for example, torsion vs. fall, or traumatic childbirth?

Certainly you must assess the amount of instability and it is possible to severely avulse or fracture the joint, with severe injury. However I remember one chap that was hit in the back with a bulldozer blade. He had gross instability, but it was essentially all in the long posterior SIJ ligament. I saw him four years after injury, convinced the WC what it was, and he went back to work as a heavy equipment operator after his SIJ fusion. This ligament is the weak link in the chain. When the SIJ goes out, this is where it goes out. It sends you a pain signal that you cannot ignore. It is acting like a reset button. Reset it in the proper position and most of the time the pain goes away. Even with rather severe trauma, careful correction can bring extreme relief, give you a clue as to the cause and direct you in the treatment. I found this to be the major cause of back pain in childbirth as well as most cases of LBP.



Are you aware of any problems that are hereditary in nature that could possibly predispose us to SIJD?

Don't worry too much about the genetics. Eight of ten people in the world will have low back pain at one time or another and I firmly believe that most of it is SIJD. If the problem were properly recognized for what it is and most of those afflicted were properly instructed in correction and prevention immediately, it would not be such a big problem. But when it is not treated and we get all the secondary changes, failure of the collagen, instability, disk degeneration, etc. that could have been avoided with proper care.

What are your thoughts on how to handle a leg length discrepancy? What about heel inserts?

The most likely reason that your left leg is longer is that it is out further on your left side. When the pelvis rotates on the sacrum it changes the relationship between the SIJ and the hip joint and always makes your leg seem longer when it's out. Once you get a full correction on both sides, I believe it will be of equal length. Do not use a heel lift.



My understanding is that the orthotics help counteract the pronation of my feet, which somehow contribute to the incorrect alignment of SIJD. I do know there are some schools of thought that all mal-alignments stem not from the pelvis down, but from the feet up. So to some practitioners, orthotics are considered more important than to others. Maybe Mr. DonTigny can explain how this all fits in...

SIJD may inhibit the peroneus longus muscle in the leg that functions to support the cuneiform bone and the head of the metatarsal during normal gait. When these bones are not supported, they may drop and cause a stiff big toe when you walk. The peroneus longus also provides up to 18 % of the stability of the sacrotuberous ligament, which is essential to maintaining stability in the SIJ. With a sudden onset of SIJD, when the innominate rotates there may be a sudden pull on the hamstrings. The lateral hamstring, the biceps femoris has an insertion into the lateral capsule of the knee and to THE HEAD OF THE FIBULA. The sudden pull on the biceps femoris may subluxate and lock up the head of the fibula. Dr. Dannanberg did all of the right things! He pulled on the leg and corrected the SIJ, which loosened the biceps femoris and restored function to the peroneus longus; he corrected the subluxation/fixation at the head of the fibula and he made an orthotic to support the cuneiform bone and the head of the metatarsal.

Do you have an opinion on whether a neurologist or orthopedist is a better choice when dealing with SIJD and related disorders?

For the treatment of the SIJ your choice between the neurologist and the orthopedist should be a physiatrist or an orthopedist who practices orthopaedic medicine as opposed to orthopaedic surgery.



Are there actually nerves that run through the SI joint?

No nerves run through the SIJ, but when your pelvic bones tip down on the sacrum and make your legs longer they stretch the nerve roots and can cause numbness, weakness or sharp, lancinating pain.



Is good posture important?

I would just like to take a minute to stress the importance of good posture and especially proper head position in the treatment of low back pain. It is essential that you carry your head erect in a military posture. When your head is balance on your shoulders, your chest comes up and you can breathe more deeply with less effort. When your head is carried forward, your chest is depressed and diminishes your oxygen exchange. This also puts some slack into your abdominal muscles and decreases your anterior pelvic support. When the pelvis tips down you are prone to SIJD.

Not only that, but when the pelvis is tipped down and you have a lordotic posture you interfere with the function of your hip flexors and instead of bringing your feet straight forward when you walk you will tend to externally rotate your feet and bring them forward with the hip abductors. This will stress the medial knee ligaments, flatten your arches and cause you to roll over your big toe causing a bunion. If you have a bunion you probably have a forward head posture. Further the anteriorly tipped pelvis will cause your knees to pop backward and hyperextend in what is called recurvatum.

How do hormones play a role?

Many times you can 'fix' SIJD just by doing the corrective exercises when it starts to hurt. Women have a problem with a hormone called relaxin, which is present in their bodies during the last trimester of childbirth and serves to soften pelvic cartilage. This hormone is also present about a week before your period and makes you more susceptible to injury through minor trauma. You must be more careful at that time. During your period the hormone is negated and the ligaments firm up again.

Until a method is found to reduce the level of Relaxin in the system each month you must be careful to practice good body mechanics at that time. The Relaxin does not cause SIJD, but makes your ligaments less stable and more prone to injury through minor trauma.



You mention that SIJD can cause congestion in the pelvis and can lead to dysmenorrhea in women. What is this?

Dysmenorrhea is just a term for painful menstruation that doctors use so they can charge more. SIJD is responsible for a lot of things in and around the pelvis. Best bet is to get it corrected and then re-assess. When the innominate moves

downward on the sacrum it also stretches the nerve roots. As a rubber band gets smaller when you stretch it so do the nerve roots. Therefore, when stretched, the nerve gets smaller and the fibers are compressed. At 15% elongation there is total mechanical blockage of sensation. The dorsal roots (sensory) are more susceptible to stretch than the ventral so when they are stretched you get numbness, burning and other sensory changes with no involvement of the disks.

I have an extra lumbar disc they call L-6, could that be causing my pain or effecting my SIJD?

If you have a congenital problem like the L-6 abnormality, you have obviously had it since birth. It would seem that if you have had this problem for a number of years and if it has not hurt you before, why should it start now, barring some traumatic event directed at that abnormality. Just because you find something unusual on the x-ray does not mean that it is the cause of the problem. Look at all the people with absolutely normal x-rays, MRIs, etc that have a problem with there SIJs. The L-6 may or may not have anything to do with the back pain your are having. Try correcting the SIJs. It won't hurt anything and it might relieve the pain. If it relieves the pain, the fact that you have an L-6 abnormality is irrelevant.

Testing for SIJD



If all of the following test are positive; Gaenslen's Sign, Patrick's Test, right provocation test, Yeoman's test, right leg being short in the supine position & travels long with sitting) is this all signs for a positive diagnosis for SIJ dysfunction?

Patrick's test is for hip disease. The rest are used for SIJD, but are neither particularly accurate nor specific. I quit using all of these tests, except Patrick's over 20 years ago because none of them told me enough about the problem.

Depending upon the onset and the severity of the dysfunction, many tissues can be involved and these can be examined individually. There are a few signs common to all SIJD. The most important is pain at the posterior inferior iliac spine. Second is pain just below the posterior superior iliac spine at the insertion of the long posterior sacroiliac ligaments. Third is the manner in which the leg length changes and shortens with the corrective procedure. This is all you need to know to make a diagnosis. Passive straight leg raising tests can be helpful, but are almost never interpreted relative to SIJD and so, as presently interpreted they are usually invalid. Tests for asymmetry are not helpful, forward flexion tests are usually not helpful. Movement restriction tests are not helpful. Most of the time the practitioner takes the patient through a long series of irrelevant tests that tell him/her virtually nothing and serve only to aggravate the patient's

condition.

What is the Patrick's test?

Patrick's test is to test for arthritis of the head of the femur or hip disease. You lie supine, put the heel of your right foot onto your left knee and let your right knee roll out to the side (externally rotate). If this hurts it may indicate hip disease, but should be confirmed on x-ray. Sometimes with SIJD you may get a false positive Patrick's test. There may be a lot of swelling and tightness around the hip, but if your practitioner is careful you may be able to restore the motion with contract relax techniques.



Will an SI injection help?

A cortisone injection into the area of the posterior inferior iliac spine can be of benefit. Marcaine and triamcinalone seem to be effective. If you inject into the joint and the joint is intact, you may encapsulate the injection and it will not reach the tissues posterior to the S3 segment that are most affected.



What would be a reason for not getting any relief from an SI injection?

If your physician injected the steroid into the joint capsule, the steroid remained in the joint capsule and did not get into the adjacent tissue that was most affected. The injection needs to be in **the area** of the posterior inferior iliac spine and **not into** the joint.

Are there ever false negative results from an SI injection?

When a physician gives an injection directly into the sacroiliac joint, about the only time it gives relief is when there are tears in the joint capsule and the anesthetic leaks out to the adjacent tissue. If there are no tears then the anesthetic is held within the joint capsule and will not give any relief. This is a false negative test. It is better to give the injection into the area of the posterior inferior iliac spine, which is just posterior to the SIJ. Look for a trigger point in that area.



If my provocation tests were negative, do I then not have SIJD? I've been tested twice (two different people/places) with pressing the SIJs out while on my back and squeezing them together and there was no pain either way. So is it truly a piriformis/glute muscles thing with sciatic nerve problems? I'm still so confused and don't know who to trust and what the heck exercises to do. I've had 2 SI injections with mixed results.

Provocation tests may not be relevant to the problem. The only signs I have been able to rely on are pain at the posterior inferior iliac spine first, pain at the posterior superior iliac spine second and third mobilize the innominate bones posteriorly on the sacrum and see if the legs get shorter. If they shorten, it's SIJD.

The doctor has told me that if I was subluxated, he could see it on the CT scan, but he cannot. If I were "in place," at the time the scan was taken, then the subluxation would not show up. Is this a correct assumption on my part, or am I mixed up?

It is in the nature of the SIJ to demonstrate arthritic changes by the fourth or fifth decade. The only way you can see the S3 subluxation is by x-rays or cat scans before and after manipulation. This subluxation is a movement of the PIISs of the ilia cephalad and laterally on the sacrum causing a movement of the PSISs about 1.0-1.5 cm. I have measured it and x-rayed it. Even if you know what to look for the x-rays appear normal.



After examining me and discussing how the injury occurred (most likely torsion from playing racquetball/softball) he claims that I have an upslip with posterior rotation on the right and possibly anterior on the left. He also told me to stop doing my manual round exercises since they focus on correcting anterior rotation not posterior. To correct posterior rotation he has me lay on my stomach and pulls on my right leg. At this point I am totally confused in this anterior/posterior loop. What do you suggest?

I understand completely what he is doing and why. This is a common mistake. What looks like posterior and upslip is just a secondary slipping that occurs after the anterior subluxation and is corrected in the same manner. The sacroiliac joint is made up of three different parts of the fused sacrum on one side and the ilium of the innominate bone on the other. The upper part of the sacral side of the SIJ is from the S1 sacral segment. the middle part of the SIJ is from the S2 sacral

segment and the lower part of the sacral side of the SIJ is from the S3 sacral segment. When the innominate rotates anteriorly on the sacrum, when it goes 'out', it subluxates (partially dislocates) by moving up and out on the S3 segment so I refer to it as an S3 subluxation. Because of the unique variance in the angulations of the joint surfaces, when the S3 segment subluxates, the S1 segment is opened slightly. The thing that has been overlooked by essentially all practitioners is that once the S3 subluxation occurs, the innominate may move up or down at the S1 segments giving the appearance of many different kinds of dysfunction.

All of these kinds of dysfunction can be corrected by the same maneuver and that is to correct the S3 subluxation by moving the back part of the innominate bones caudad and medially (down and in) on the sacrum. It must be done one side at a time, several times on each side, alternating. This will always cause the legs to appear to shorten no matter which is long or short, they will both shorten from 1 to 3 cm. With correction of the S3 subluxation, at least 80-85% of all patients with low back pain will be essentially free of pain within ten minutes.

Do torn ligaments in the SIJ show up on x-ray?

Depends!! Most of the time with plane AP and Lateral films, they do not show up, mostly because of the position of these ligaments between the bones. SIJD was demonstrated back in about 1930 using stereoscopic x-rays, but nobody does that any more. Injecting dye into the SIJ will demonstrate if the capsule is torn, but you can have SIJD without a torn capsule. Diagnostic injections of anesthetic into the joint capsule may give a false negative reading. If you get relief from such an injection, it is likely that the injection leaked from a tear in the capsule to the adjacent affect tissue, but if you get no relief, it may be because you injected into an intact capsule and the anesthetic was held there. In that case, you could have SIJD with no torn capsule and no relief from the anesthetic and thus the test would be falsely negative for SIJD.



What is the best way to x-ray the SIJ?

I was reviewing some old x-rays of the SIJ before and after correction and in one of them the patient was lying at an odd angle because she was in so much pain that she could not lie flat. That angle demonstrated that the joint surfaces were incongruent; they did not match one against the other. I believe that you can demonstrate SIJD with plain films, but not A/P, lateral or oblique. It must be done from the back or front with the x-ray aimed at the planar surfaces. This may require two procedures for each joint, because the S1 segment is at a different angle from the S3 segment. For instance, to visualize the right SIJ from

the back, I think that the x-ray should be taken from an angle of about 20 degrees medial from sagittal for the S1 segment and about 5 degrees lateral from sagittal to visualize the S3 segment. Simply look for incongruity in how the ilial surface of the SIJ lies against the sacral surface of the SIJ. You might be able to visualize the disruption at the posterior aspect of the S3 segment. I hope this doesn't upset too many radiologists.

Anyone have hip and groin pain in addition to SI pain? What about low back (unilateral) pain/muscle tightness? When do you get the pain? With activity? Or while lying/resting? Wondering and wanting to compare symptoms. Worried that the hip (which started after the SI problem; as a result of, I'm sure) means that the joint is injured. The "Patrick's" test is painful and I get clicking/grinding when rotating my leg out like that, while flexed at the knee.

Pain in the SIJ can refer into the groin. You can have pain over the pubic symphysis. Pain is also common in the buttocks in the gluteus maximus on a line from the PSIS to the trochanter. You can also have a false positive Patrick's test, although when the mechanics of SIJ are compromised it increases the impact loading to the hip and may be a factor in hip disease. You must get your SIJ corrected to the self-bracing position. Then find a PT who knows PNF and ask them to please gently restore motion to the hip and buttock using PNF patterns and contract/relax techniques.

What exercises should I be doing at home to correct the SIJ?

Basically, you can start about any type of exercise program so long as you do a corrective exercise before and after your program. You can certainly do exercises for your upper and lower extremities, quads, hams, biceps, triceps, deltoids, etc. I believe that active double and single leg raising is contraindicated as is hyperextension exercise for the low back. You just must become aware of the positions that make you hurt and protect yourself by tensing the abdominal muscle group. Proper head posture is important.



I wonder how high does your leg have to be in the doorway to do the doorway one of manual rounds? I can't raise the legs very high.....so I was wondering if it's not as effective?

Better start stretching your hamstrings so you can get your legs higher - and strengthening your tummy muscles. Try the exercise with the belt and push out with your knee against that.



When I do the knee to the armpit in the Manual Rounds, I can't go very far with the stretch because my groin muscles are extremely tight. Is this common with SIJD?

Don't worry about the tight groin. Don't make it hurt. Just keep on with the corrective exercises.

In your experience, what percentage of people with SIJ disorders can fix themselves, more or less, by following religiously the correction and strengthening exercises you describe?

Just a guess, but I believe that at least 50-60% of all with SIJD can fix it themselves. Another 20% can improve, but may need an assistant or professional help to assist with correction. I suspect that 15-30% may need prolo to stabilize unstable joints. I am now of the opinion that prolo should be used early on if the SIJ instability persists longer than one month in order to prevent extensive collagen failure in the long posterior sacroiliac ligament. I believe strongly that surgery must be developed to repair ligamentous damage and preserve function in preference to fusion, where you lose all function. It seems to me that loss of the shock absorber function in the SIJ will increase impact loading to the hip joints and may cause hip disease. And will also increase shear and torsion shear on the disks increasing the probability of disk degeneration and herniation.

What about swimming?

I think swimming is good - and you don't have to wear your SI belt when you swim. Generally, most exercises are OK, but do your corrective exercise before exercising, wear your SIJ belt while you are exercising and do your corrective exercises again after your regular exercise program. I would emphasize more flexion exercises than extension. No straight leg raising exercises. No sit-ups

with the legs straight.

Do your ligaments ever heal completely? Can I expect a troubled pregnancy? Also is there any way to prevent my ligaments from overstretching during pregnancy and finally is it possible to have a safe vaginal delivery after SIJD?

You are healed, for now, but you can be re-injured at anytime if you recreate the conditions that caused the injury in the first place. The least little soreness you get in your low back, do the exercises. And always hold your pelvis up in the front, especially when you lean forward to do anything. When you get pregnant, continue the corrective exercises. Your ligaments will tend to loosen in the last trimester and you may have some pain then, but the prolo you have had will make you more stable than you otherwise would be. You may need to wear a pregnancy support to protect yourself and minimize any recurrence. If you continue to have back pain after pregnancy, you know what to do for it.



I have been completely pain free for the last four months; I have had four prolo sessions, which helped me tremendously. I still do your corrections religiously and I have no pain not even the old burning in the joint area that I used to have. I have a completely normal life complete with regular exercise. Could I be healed now? Do your ligaments ever heal completely? Can I expect a troubled pregnancy? Also is there any way to prevent my ligaments from overstretching during pregnancy and finally is it possible to have a safe vaginal delivery after SIJD?

You are healed, for now, but you can be re-injured at anytime if you recreate the conditions that caused the injury in the first place. The least little soreness you get in your low back, do the exercises. And always hold your pelvis up in the front, especially when you lean forward to do anything. When you get pregnant, continue the corrective exercises. Your ligaments will tend to loosen in the last trimester and you may have some pain then, but the prolo you have had will make you more stable than you otherwise would be. You may need to wear a pregnancy support to protect yourself and minimize any recurrence. If you continue to have back pain after pregnancy, you know what to do for it.

You talk a lot about posture. what about crossina the leas or sittina

indian-style...are those 'bad' positions to sit in?

I think you can cross your ankles safely, but not higher or sitting indian fashion without separating your SIJs.



I have been doing the manual therapy exercises described in manual rounds three times a day. I've had SIJ pain for over a year now on a daily basis. I walk on a treadmill or on an elliptical cross trainer during lunch for about 25 minutes. Are these additional exercises okay?

If your SIJs are out, the treadmill and cross trainer might irritate them so do your corrective exercises before and after the treadmill. Are you doing your exercises on both sides? Alternating? Several times daily? Do they give you decent relief of pain? If not, hold the stretch a little longer and stronger each time. Do you have anyone who can work with you on this? Once you get a correction it may stay in longer if you wear a lumbosacral support, an SIJ belt or even a conventional trouser belt snugly around the hips, just below the crests and ASISs and above the trochanters.

I asked you all about exercise before and you said I should do DonTigny's Dynamic Core Exercises (DDCE), which I actually had been doing, but not as much as now. I am also still doing all the other exercises my PT gave me, should I stop? I have to say I feel better the last few days And how long do I try this and the Techniques in Critical Analysis before I go for another injection or try something else. Since I do occasionally have days that are completely pain free for no apparent reason, and my pain changes somewhat in terms of location as well as severity, does that suggest a hyper mobile SI? And since I have tight L5, etc, should I do anything with the PT besides your program? Finally how do I know if it is unilateral or bilateral?

You can begin doing almost any kind of exercise now that you understand **DDCE**, however single or double straight leg raising is a no-no as are sit-ups with the legs straight. Bent knee sit-ups and crunches are OK. I think you should do a corrective exercise before and after your exercise session and be sure to hold your abdominals tight and do your pelvic tilt while you are exercising. SIJD is almost always bilateral and one side may be less stable than the other. I don't usually talk about hypo or hyper mobile. When the joint is locked up it

appears to be hypo mobile, but it is the instability or hyper mobility that allows it to lock up. The fact that you are free of pain some days tells me you are getting a correction, but not holding it so it is unstable. Next step is to use an SIJ belt or a lumbosacral support just above the trochanters to hold the correction. Properly applied, lie supine on the support, do your corrective exercises and then tighten the support. Now the support will tend to hold it in a good position- but this doesn't mean you can stop doing your pelvic tilts. If you put the support on when the SIJ is uncorrected, it will hold the joint in the position of subluxation and increase the pain. Personal opinion, try the exercises for a few weeks, then with the support for a few weeks. If you keep improving, OK, but if not then you should consider prolo.

You've often stated that 90% of your patients felt profound relief after your 40 degree traction technique but I'm curious about the other 10% that didn't respond. Was it that they had other complicating factors that prevented correction? What course of action did you then take with them? Did they ever fully recover?

About 2-3% of the other 10% are degenerative disk disease, other types of bone disease, fractures, spondylolisthesis, congenital problems, severe injuries, etc. The remaining 7-8% will still get good relief from the treatment but because of local swelling, inflammatory processes, gross instability or pain following inappropriate surgical procedures not get full relief of pain. You must also understand that of the 2-3% with disk disease, etc. that when the innominate subluxates they loosen the iliolumbar ligaments, which destabilizes the lower lumbar vertebrae and causes disk disease. If the vertebrae slide forward on the sacrum because of the loose iliolumbar ligaments, then the ligaments retighten and prevent you from getting a correction of the subluxation. But, I believe that most of the time the professional 1) does not believe in the subluxation, 2) was trained in other methods and would rather use them, or 3) isn't working long enough or hard enough to reduce the subluxation.



Any suggestions on frequency of alignment?

Don't worry about doing the corrective exercises too frequently. I think that you should do them at least once a day whether you think the SIJ is out or not preferably at bedtime.

Is it normal to have some lumbar stiffness after these self-corrections?

If your SIJ has been out for a while, the paraspinals may undergo some sarcomere subtraction. Do some gentle knee to chest to stretch out a little. I always liked to follow corrective mobilization with some heat, electric stim to tolerance and massage to get rid of any local edema - especially over the glutes. Notice the painful point at the posterior inferior iliac spine - that is the S3 segment of the SIJ. This is the cause of idiopathic low back pain and essentially all patients with it will respond to the same specific treatment.



Is it okay if I continue with my Yoga?

Yoga is OK, but if your SIJ is 'out' when you get into the cross-legged position, this will tend to open the joint more and may hurt. Do your corrective exercise before and after yoga.



Why do stairs bother me so much with SIJD?

When you walk up stairs you must lift your leg with the hip flexor muscles, the psoas and the iliacus. The iliacus originates on the inside of the iliac fossa (pelvic bone). When you lift your leg, the weight of the leg pulls downward on the pelvic bone and increases the pain of SIJD, because SIJD is anterior and downward rotation on the sacrum, and the weight of the leg pulls the pelvis anterior and downward. To protect yourself when walking up stairs, you must hold your abdominal muscles tight to support the front of the pelvis, so that it will stay supported as you lift your leg.

It is possible to be quite stable when both SIJs are subluxated, but it's not very comfortable. Could you please elaborate on this?

If both of your SIJs are in dysfunction - rotated anteriorly and subluxed at the S3 segments on both sides. You are locked up pretty tight with lots of tension on certain ligaments and specific muscles. The SIJs are 'stable' only in the sense that they cannot move or function properly and the PT only feels the tightness and sees the symmetry and does not comprehend the mechanism. In this case the only option is to correct the SIJ, correct the SIJ, correct the SIJ. Once corrected, the pelvis will be symmetrical and it won't hurt, but unfortunately it might not

be very stable because of the strained ligaments and the dysfunction might recur.



I went into my chiropractor today and told him about this type of manipulation. He wanted to know how he can tell if I am rotated anterior without out x-rays from a side standing view, or is there some sort of physical test for this? I am wondering why that anterior approach works better?

Print out "Critical analysis..." and give it to your chiropractor. Tell him that it's all anterior. After the initial subluxation in anterior rotation of the ilium on the sacrum at the S3 segment of the SIJ there is still some movement available at the S1 segment. The secondary movement at the S1 segment will give the impression of a posterior dysfunction, but if you correct the anterior dysfunction at S3 by moving the innominate caudally and medially on the sacrum it will automatically restore the proper position at S1 too. And no matter if the leg looks long or short at first, the leg will always get shorter with correction. Be sure to always correct both sides and keep correcting and checking the leg length until the legs just won't shorten any more.

What is the "side roll" that chiropractors shouldn't do, and what does it do to the sacroiliac joint when performed?

You may be confusing two different techniques. The 'Million Dollar Roll' is done with the patient lying on his back. hips and knees flexed and

rotating the trunk right and left. Loosens facets, but torques the disks. The most common chiropractic maneuver for SIJD is side-lying while the doc pulls back on the shoulder and shoves forward and down on the top of the pelvis. This shoves the front of the SIJ down at the S1 segment, and makes the S3 subluxation worse at the back of the SIJ. The pelvis needs to go down in the back to move the S3 segment of the SIJ down in back. The rolls are OK if you are careful, but the shoves will not only not correct the joint, but will make it more unstable by stretching the long posterior SI ligaments.



I have come to realize that I am hypo mobile at my left SI. I do the manual rounds but my question is are there any specific exercises that I can do to help get a full correction? My hubby helps do the leg pull but we are finding it more and more difficult to get a full correction. The SI also makes a loud pop when it finally goes back. It used to correct easily but now it is getting much harder and longer (I am at day 4 of being unable to correct SI) any help would be appreciated.

It is not necessary to get a "Pop" to get a correction. Try the EZ fix method. Your husband should not be jerking. It should be a strong, steady pull for several seconds - not in line with your body, but with the leg being pulled up at about 45-50 degrees. You should be doing both sides, one at a time, alternating right and then left, repeat five or six times.

It appears as though the most effective correction for me is lying on my back, knee bent and pushed forward. Since this appears to help significantly, is there an added benefit of doing the others following this one? Could I possibly put myself back out by doing the other exercises?

No danger. All of the corrective exercises are designed to do the same thing. If you are standing, I don't want you to think you have to go lie down to make a correction so do one of the standing exercises, either one foot on a chair and reaching down with the other hand, or standing in a door frame and pushing as pictured. If you are sitting, do one of the sitting exercises. You will find that some of these exercises are much easier for you personally than others. Do one or more of the corrective exercises every 2-3 hours all day long for 3-5 days and then 2-4 times a day for a week and then whenever necessary. Get it in place and keep it in place and allow all of the adjacent tissues an opportunity to heal. Be sure you correct both sides, one at a time, alternating 4-6 times. If you are not

getting a full correction hold the stretch a little longer and stretch it a little harder.



Are you supposed to do your pelvic tilt posteriorly? Does that mean a cat stretch is hyperextension of the spine? I thought it was the other way, flatter back, pinch the buttocks?

A posterior pelvic tilt is lifting the front of the pelvis with your abs and rotating it posteriorly on an acetabular axis. Also, pinch your glutes together. This flattens your low back.

I have to get a belt to do the manual rounds. Should it be fabric or like a man's leather belt? How wide? I don't do the knee to armpit.

For a belt to push against in Manual Rounds, go to Kmart or Wal-Mart to the luggage department and get a luggage belt - about 4-5 bucks. Fiberglass, plastic buckle, about 5-6 feet long. To be on the safe side. Use the belt as described in the pictures in Manual Rounds and start by pushing moderately hard on the least painful side and then on the more painful side. Then a little harder on the least painful side and a little harder on the more painful side and so on. A few hours later in another session do the same and kick it up a notch.

Next day kick it up a notch until you are finally pushing your knee out against the belt as hard as you can push. Just make sure the belt is securely fastened so that it does not come loose at the buckle or slip off of the knee. Don't jerk or pop. Use a smooth application of power. When starting, the knee should be snug, as close to the chest as possible with the belt and the belt is around your body behind your shoulder blades in back. Don't make it hurt. Don't do this if you have any problems with your knees or hips or weakness in your bones.

My wife has been doing the self bracing techniques that only require one person. Since she has been back to PT, she feels like it has become more difficult to "feel the effects" of bracing. Tonight she asked me to do the "raise the leg up and pull" technique and alternate sides routine. I used to do this one regularly for her, but something feels really different now. When I place traction on her right leg by pulling her leg feels really heavy (like I'm pulling on a

tree branch). There is no give in the leg. When I pull on her left leg it feels like I am pulling on a bungee strap. To pardon the pun: What gives?

It may not be what gives, but what is not giving. The left leg is giving, but the right may be stuck a little. With your wife lying supine stand along her right side and reach your right hand between her legs and up under her right ischial tuberosity and buttock. Place your left hand (partially cupped with the thumb along side of the index finger) on the top of her right iliac crest (not over the ASIS) and pull up with the right hand and push down and back with the left hand so as to cause the innominate bone to move caudad and medially on the pelvis. It should not hurt to use as much controlled power and force as you can generate. Check the apparent length of the legs before and after and note if the leg gets shorter with this procedure. No matter if it is longer or shorter to begin with, it should get shorter. Do both sides a few times like this and then pull on the flexed leg to see if it gives a little more.



Are any of your self-bracing corrective exercises designed to spread open the two sides of the pelvis while rotating the effected innominate, or is this unimportant?

When the SIJ subluxates, the innominate bones move cephalad and laterally on the sacrum, which makes the innominates 'flare'. When you reduce the subluxation by bringing the innominates caudad and medially on the sacrum, the iliac crests approximate. When you achieve self-bracing, the margins of the joint match, the joint surfaces are congruent and the normal tension is restored on the ligaments.

My PT has directed me to add something to my self-care called 'gapping', what is it?

Gapping is just spreading or opening the SIJ a little. Sometimes the decrease in friction will allow the joint to assume its normal position, but you can't count on it. Better to nudge it posteriorly. If you can gap an nudge you might get it.

The Sacroiliac Belt



I put on my SIJ belt for the first time in a long while. I put it under me on the bed, did the self correction, then secured the belt. It has been on all day and has helped. I feel good while standing and some pain in my left side while seated with it. Should I continue with this procedure? Also, can I exercise with it on?

I think you did the right thing with the SI belt and the corrective exercises. Do the corrective exercises many times daily for a few days just as it says. Follow exactly. You can probably fix it yourself.



What is the best way to put on the SI belt?

The SI belt should be put on when you are lying down and after a correction has been made. This helps to hold the SIJ in place. Go ahead and wear it during the day, but if it starts to hurt, loosen it and then do the corrective exercises again and then tighten it up again - just snug, not real tight. At night, take it off and try sleeping in an elastic garment like a panty girdle.

Can I do damage or inhibit more permanent correction by wearing the belt all day long if it is working without pain?

As long as you are doing your corrective exercises and practicing using your abdominals during the day, I see nothing wrong with wearing the SIJ belt to provide some additional stability while the ligaments heal in the proper position. Remember it may take up to a year for ligaments to heal.



Is there anything else that I can use besides an SI belt?

I am not a big fan of the SIJ belt. I preferred to use an elastic lumbosacral support with posterior stays and two elastic secondary support straps fastened in front. I had the patient lie on it and overlap the primary velcro closure and then pull on the secondary straps angled downward toward the symphysis. This combination gave a circumferential stabilization and a lift on the front of the pelvis to counter the anterior rotation. I approached several manufacturers with ideas to modify their belts to better support the SIJ, but never got any interest. This should be worn just snug and not too tight, by the way. If pain at night when sleeping is a problem sometimes sleeping in a panty girdle type support

can help a lot. SIJ belt can stabilize the SIJ, but only around the pelvis and it has no corrective properties. The lumbosacral support also helps to stabilize the lower lumbar vertebra, which are destabilized with SIJD.

Can you explain why one would have numbness/tingling in their hands//feet? They have checked for disc injury--thus far there has not been one. This seems to occur when the SI joints are at their most inflamed.

Please understand that I am giving you my best guess, as I am unable to physically assess your SIJ. There are a number of things that can cause paresthesias into the feet- a stretched nerve root, synovial fluid leaking from the joint to a nerve. I think you must start by getting both SIJs into the self-bracing position and a lot of the other stuff will just clear up.



Is there any way to test for these tears in the SI joint?

The only way to test for the tears is through arthrography, injecting dye into the SIJ and then X-raying it to see if the dye leaks out.



Would tears naturally resolve/heal once the pelvic girdle is properly aligned?

We like to think that the tears will heal following correction, but this research has not been done yet.

Can you tell me more about the joint leaking synovial fluid?

Leaking synovial fluid can act as an irritant. On arthrography of the SIJ, Fortin and Aprill found that tears in the joint capsule can leak dye to the lumbosacral plexus, the root of the fifth lumbar nerve and into the body of the psoas muscle. Not a lot of work has been done yet in treating this.



My CT scan showed that I have cysts on my sacroiliac joints and I thought--MY WHAT? I'd never even heard of it. Has anyone

out there ever even heard of this?

Because a tear in the joint capsule can leak synovia to the lumbosacral plexus, the synovia can irritate it. The body may also form a sack around the synovia called a cyst. A cyst could also irritate the plexus.

I kept trying to understand if there is any correlation to the large ovarian cyst that was picked up on my pelvis MRI. The cyst was so large that it is running very close to piriformis. I was told it was a harmless cyst and "incidental" finding. To this very day I do not think it is incidental AT ALL. I really believe it has something to do with the SIJD situation. Especially knowing that is so very close to the original area of injury. Any thoughts?

I was trying to point out that there is a relationship between SIJD and pelvic congestion and another between pelvic congestion and many different problems that occur in the pelvis. Someday, somewhere some ob/gyn might take a look at this. I don't know what the precise relationships are, but it seems worthwhile to do some simple treatment for the SIJ and then watch and see if any of these other symptoms are eased. I have already described many of the problems that are related to the SIJ. I don't believe the ovarian cyst is related to the SIJ, but it certainly could have some local effect on adjacent tissues.



When I was seeing a chiropractor, way back when, they x-rayed me to see if I had avascular necrosis (because of hip pain) He said, and I could see it, that my pelvis was twisted, and that it would always be that way, there was no correcting that. So last week when I went to the trigger point person, she said--your pelvis is twisted to one side. And my left leg is longer, although I swear it's always been that way. My question--does this twist thing happen? Can it be fixed?

The twist does not cause SIJD, it is the SIJD that causes the twist and the leg length difference. When the pelvis rotates forward and down on the sacrum the hip joint changes its relationship with the SIJ and the leg gets longer and this shoves your pelvis up on that side. This makes your hip higher when you are standing and your leg longer when you are lying down. More commonly the pelvis rotates down on both sides, making both legs longer, sometimes one more than the other.

The pelvis may then may undergo some secondary shifting to make it seem like there is an 'upslip' or a posterior dysfunction, but these can not occur unless both sides of the pelvis have already rotated forward and down. To correct the SIJD

and make your legs the same length and take the twist out of your pelvis and to relieve your butt and groin and hip and leg and belly pain. You absolutely must correct the SIJS by rotating the back part of the pelvic bones down on the back part of the sacrum while moving the front part of the pelvic bones up on the front part of the sacrum. You must do this one side at a time, alternating right, left, right, left, as I described in **DDCE**.

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Can one have a shorter leg due to muscle spasm in the back, while the SI Joint is in the correct place?

You could have some tightness in your quadratus. Lie on your back, have your chiro gently swing your left leg over your right while holding your left shoulder down and stretch your left flank. Now put your leg flat and check your leg length. Now have him reach between your legs with his left hand and grasp your ischial tuberosity and buttock and place his right hand with his thumb along side of the index finger on the back part of the iliac crest. Now pull up with his left hand and rotate the back of the pelvis down and in with his right hand. Check the leg length and that leg will probably be even shorter than it was before. This is what should happen! Now rotate the right side back in the same manner and that side

will get shorter. Do again on each side until no more shortening occurs. In no case should he pull down on the short leg in the long axis in line with the body or have you side-lying and pull your left shoulder back and shove your left hip down in front.



When the SI joint is inflamed can it refer pain to the knee? The knee itself is not inflamed but feels sore...has something to do with nerve pathways. My knee feels sore when my SI is inflamed too.

It is not just that the SIJ refers pain to the knee, but that when the SIJ 'goes out', it pulls on the outer hamstring that actually inserts into the lateral (outside) part of the knee capsule as well as into the head of the fibula. This can also sublux the head of the fibula as a result.

How is this affecting the other muscles and what is causing my leg pain?

The piriformis gets a little shear on it just below the margin of the sacrum and the ilium with SIJD. The piriformis has an origin on the lower inside of the pelvis and another origin on the upper margin of the greater sciatic notch of the pelvis. With one origin on the sacrum and the other on the pelvis you can see why it would hurt if these two origins were separated with SIJD. Same with the iliopsoas. The iliacus has an origin on the inside surface of the pelvic bone and a secondary origin on the inside surface of the sacrum. This muscle blends with the psoas muscle and insert on the femur to form the hip flexors. The two origins of the iliacus can also separate and cause pain in the hip flexors with SIJD.

A common method of relieving pain is to stretch the painful muscle, because a muscle stretched to its full length is electromyographically silent, but the same movement you use to stretch the iliopsoas will increase the anterior rotation and hurt more.

Regarding the pain in the sacrotuberous: just beneath the sacrotuberous ligament is the sacrospinous ligament and the sacrospinous can be really sore with SIJD. The sciatic nerves come out just below the piriformis and sometimes has fibers actually running through the piriformis muscle so if you are having problems with the piriformis, and the psoas, and the sciatic and the sacrospinous, best bet to cause it is the SIJ.

Those muscles aren't holding the SIJ so you can't get a correction; the

joint is holding the muscle in a bad position. Correct the SIJ.

Sometimes it feels like I am sitting on a baseball, is this related?

I think the ball in the butt syndrome is probably a lot of swelling and congestion around the S3 subluxation spreading out in the separated area of the gluteus maximus, just below the PSIS. May also be from tears in the SIJ capsule leaking synovia. I remember one woman who had such a bad separation of the glute that when she would sit, the lower fibers of the muscle would roll under the ischial tuberosities like a piece of rope. Never could find anyone to fix it. She moved away and finally died. This was before we had docs like Lippitt brave enough to buck tradition and start doing surgery on the SIJ. It's better now, but deep in my heart I think the surgery must eventually address preserving function to preserve the force couples. My own thoughts are that you might be able to borrow some tendon from the sacrospinalis muscle and marry it to the long posterior sacroiliac ligament, but I don't believe anyone has done this yet.



If I am faithfully doing manual rounds, wearing a belt, getting EZ fix, taking it easy on everything else, what should I expect for duration of pain relief if my problem is really SI? Is it common to start hurting other places while it is working? My pubis has never really been sore before but it is now. I do notice if I do the floor exercise and then put my belt on I feel better for a while. But I feel sensations I haven't felt before.

You might try pushing or stretching a little harder and a little longer and a few more times each session to make sure you are getting a correction. If your pubes are sore, you may be getting a good correction on one side, but not on the other and the extra torsion is going through your pubes. When you get a full correction you should be essentially free of pain, although there may be some residual soreness.

This relief should begin to last longer and longer and it will be easier to get and hold a correction. With ligamentous instability, you may have to continue corrective exercises at least occasionally for a long time. The relief will last longer if you wear a support - or get some prolo.

Where exactly is the PSIS and PIIS? My whole right low back, butt and hip area is sore.

Feel those two little bumps in your low back just below your waist line on each side of your sacrum, about 3-4 inches apart? Those are your PSISs. Just below each little bump is where the long posterior sacroiliac ligaments attach. Just on the inside edge of each bump is where the short posterior sacroiliac ligaments attach. The posterior inferior iliac spines are below the PSISs on each side of the sacrum and really deep below those muscles. You have to be lying down with really relaxed butt muscle to be able to feel these and when you do you will know it.

The pain will talk to you and tell you that you are in the right spot. This is the very lowest, back part of the sacroiliac joint. The sacroiliac joint is made up of part of three sacral vertebra that have fused with others to make up the sacrum. The top part of the SIJ is part of the S1 vertebra, the middle part of the joint is part of the S2 vertebra and the lower part of the joint is part of the S3 vertebra and the back part of that is the posterior inferior iliac spine.... When the SIJ goes out, the PSIS moves up and out on the sacrum at the S3 segment at the PIIS. When this happens it stretches the short and long posterior sacroiliac ligaments, which are attached at one end to the PSIS and at the other end to the sacrum.

My PT says my sacrum is rotated to the right and tilts back a little on the upper left corner (L5 goes out too). Would the exercises/techniques used for anterior rotation of the pelvis be of any help for this? Is L5 driving the sacrum out and if so is there an exercise that would help? The PT says he corrects everything but it doesn't hold long.

The sacrum may be rotated to the right, but it does not do this all by itself. When the sacroiliac joints subluxate at the S3 segment, one apparent result of this subluxation is a sacral torsion, but to correct this sacral torsion you must correct the dysfunction in anterior rotation of the innominates on the sacrum by mobilizing the back part of the pelvis down and in on the sacrum. Once you have a complete correction, the sacrum will be straight.



For almost 2 weeks now the pain has shifted from not only down my right leg, but to my left side as well. If my left side hurts, my right side is pain free (the first time in a year) and if my right side hurts, my left side is fine. It literally alternates from day to day. The bone just above the right side of my butt is really sore and tender, including the area around it. I am still doing the stretches, but my right side is so flared up that it's hard to get a correction because I'm so tense. What is the BEST things I should do if my SI

does in fact move too much instead of being stuck like most people?

It's not unusual to have the pain switch from one side to the other. I think you are not getting it in place and keeping it in place. It seems to me like it is unstable and won't stay in. All I can suggest is to do the corrective exercises several times, alternating and repeat every two hours for a few days. Put a support belt on after correction to try to hold it in place longer

Can you give me some possible causes of my abdominal pain? Is it related?

The lower right abdominal pain might be Baer's sacroiliac point. This is a painful point on a line from the umbilicus to the ASIS, two inches from the umbilicus. Pain is directly related to the SIJ. Be sure it is not McBurney's appendicitis point, which is midway and a little lower. Could be muscle tear, but unlikely. A Doctor named Norman did injections into the SIJ and reported relieving abdominal pain. Just a guess, but it could be a little strain in your abdominal oblique muscles from an imbalanced usage when the pelvis is asymmetrical from the SIJD.



I have a real problem when coughing. In fact, my first pain occurred during a bout with bronchitis shortly after I had my second baby. Last week I was so encouraged because I went a full week without having to put my joint back in. It would slip out a little every once in a while but would slip back in on its own. Then I came down with a cold and despite taking cough suppressants, still coughed a lot and the joint started coming out of alignment and the pain came back. Is there any particular way I should be coughing to minimize the risk of the joint coming out? My PT suggested bending my knees when I cough.

To ease pain on coughing, put your hands on your upper hip bones (the iliac crests) Right on right and left on left, and squeeze them toward each other to stabilize the pelvis during the cough. Tighten the abs at the same time.



I have a hyper mobile SI. I had learned that the ligaments never heal (tighten up again) on their own. But now I have gotten a Serola SI belt and the information included in there indicates that you can wear the belt while the ligaments "heal" (6-8 weeks). Do

the ligaments actually ever get better? I have been battling this for about seven years (since I was pregnant).

Too many variables for a quick answer. An injured ligament may take up to a year to heal. A ligament that has had a constant stretch on it for an extended period of time undergoes a visco elastic failure. That is the collagen loses its elasticity and may never regain it. It may heal somewhat in the stretched position and leave you unstable. This is why I urge everyone to correct the SIJ and keep correcting it to keep the joint properly positioned and functioning. You must try to keep the weight off of the front of the pelvis and do all you can to strengthen the abdominal muscles. You could theoretically live without the long posterior sacroiliac ligament IF YOU ALWAYS HELD YOUR ABDOMINAL MUSCLES TIGHT AND NEVER LET YOUR PELVIS ROCK DOWN IN THE FRONT, ESPECIALLY WHEN YOU LEAN FORWARD. If you don't do that, even if you have prolo, the ligaments may eventually fail again.



Do you have any suggestions to make sitting at a desk all day more bearable?

Buy one of those firm rubber kneeling pads from the garden shop. One about 7-8" x 15-18" and an inch thick. When you are sitting put it under your upper thighs, just in front of but not underneath your ischial tuberosities (sitting bones). This takes your weight off of your 'butt' bones and tends to rotate your pelvis backwards, which relieves the SIJD. A low box under your feet helps also.

Another 'chair' that may be more comfortable sitting on the 'balans' chair. It is the strange looking thing with no back to it and you rest your knees on a support, knees are bent and your feet are more under the seat. The 'butt' bones are anchored on the seat and the pelvis tends to be rotated posteriorly because of the support from the knees. Available at office supply houses.

The physical therapist said that I have tight hip flexors (probably from sitting at a desk all day). What is a good stretch for this?

DO NOT STRETCH YOUR HIP FLEXORS!!!!!! When your SIJ goes out it rotates forward and down in front and stretches your hip flexors and makes them feel tight. If you try to stretch them any more you will simply pull the SIJ into more dysfunction and make it harder to correct. If you do the corrective exercises the pelvis will roll up in the front and down in the back and take the stretch off of the hip flexors. Just do the exercises in Manual Rounds. If you try to innovate without knowing exactly what you are doing you can make it

worse.



When I am sitting and put my left ankle (side that hurts) on my right thigh, my muscles don't spasm as badly. Anyone know why?

When your left ankle is on your right thigh you tend to open the SIJ a bit. Try twisting your trunk gently to the right and flexing forward a little at the same time, you might be able to get a correction like this. Reverse then and do it with the right ankle on the left thigh. Don't make it hurt.

Muscles



Will ointments like Ben Gay bring any relief to the aching muscles caused by SIJD?

Actually the ointments that get hot, like Ben Gay, contain methyl salicylate (oil of wintergreen). According to the PDR after you rub methyl salicylate on your skin you can find salicylate in your blood and in your urine. Methyl salicylate is in the same family as aspirin. Aspirin is acetylsalicylic acid. Aspirin is effective against inflammation because it inhibits prostaglandins. There are two types of prostaglandins and salicylate inhibits both types. As far as I know, cortisone is effective against only one type of prostaglandin. In any case, when you rub the methyl salicylate on the skin it is absorbed through the skin and has a local anti-inflammatory action. This absorption can be enhanced with ultrasound.



What is the best exercise to strengthen my abs?

Easiest exercise for abdominal muscles. Lie on your back, knees bent, feet flat. Raise your head up and hold it up. Your abdominal muscles must work to stabilize your rib cage so that you can hold your head up. Hold your head up for 10-15 seconds, lie it back down and repeat several times. Do this morning, noon and night. Gradually reach your hands out over the knees and lift your head and shoulders as high as you can. Don't worry about a full sit-up. You will get stronger. An easy one you can do standing is stand in front of a counter with your trunk bent forward and rest your hands on the counter. Now in that position try to lift the front of your pelvis with your tummy muscles. Make a little tuck

by humping your back a little like a cat stretching. Hold the tuck for a few seconds. This is an isometric exercise you can do intermittently throughout the day. Only one problem with any of these, you will not be able to do them very well until you get your SIJ mobilized to the position of ligamentous balance.

Is 'hip flexor' the same as the psoas or iliopsoas?

The psoas and the iliacus come together as the iliopsoas and these are the hip flexors. When the psoas contracts it lifts bends your hip up, hence, hip flexor. If it was really tight and in flexion it would hold your hip and pelvis up. When the abdominal muscles are holding up the front of your pelvis, it is much easier to lift your leg. When the pelvis is up, the SIJ is held into the position of self-bracing and is really strong and safe in that position. When the pelvis is tipped down with SIJD, the hip flexor is stretched and tight and it is harder to lift your leg up. It may actually hurt your low back because when you go to lift your leg the weight of your leg pulls down on the pelvis and makes it hurt more. Correct the SIJ.



What kind of exercise helps strengthen the glutes without hurting the SIJ? I have the supplementary exercises from manual rounds and do some of them with self-correcting exercises but what is for the glutes? Also, what stretch is good for the piri and safe for SIJ?

Glute exercise. Stand facing against a table. Carefully lie your trunk face down on the table with your feet on the floor with the upper part of your pelvis (the anterior superior iliac spines) supported on the table. Now grasp the table for stability and lift your right leg, out straight, up behind you so it is in line with your body. Lower to the floor and repeat several times. Then do the same with your left leg.

This will exercise your glutes and the multifidus. The piriformis is a little hard to isolate, but try this. Sit on a chair and turn your trunk to the right. Notice how your right leg pushes back on your pelvis and the left leg pulls forward? Now, holding the legs and pelvis in that position, bend forward to the right, reaching your left arm down across the right leg. Straighten up and then turn to the left and bend forward and reach your right arm down across the left leg. Straighten. Repeat a few times. Go easy. Don't make it hurt. Let me know how you do. The piriformis exercise may not be good for people with fixations.

I was given a piriformis stretch that consists of: lying on my back, knees bent. Cross left ankle over right knee and pull back, holding

stretch for a while, then repeat with other side. Is this an okay one to do?

I really don't know if the piriformis stretch is appropriate for you or not. Usually when the SIJ rotates anteriorly and goes out it puts a shearing force on the piriformis. It seems to me that to stretch it more will only irritate it when you really need to take the shear off it by correcting the SIJ.



Can you tell me more about Piriformis pain?

I found an observation that may relate to piriformis problems. I am quoting from Grieve. "Long and continued occupation and postural stress, asymmetrically imposed upon the soft tissues, tends to cause fibroblasts to multiply more rapidly and produce more collagen. Besides occupying more space within the connective tissues elements of the muscle, and the extra-fibres encroach on the space normally occupied by nerves and vessels. Because of this trespass, the tissue loses elasticity and may become painful when the muscle is required to do work in coordination with others. In the long term, collagen would begin to replace the active fibres of the muscle, and since collagen is fairly resistant to enzyme breakdown, these changes tend to be irreversible." In other words, sometimes stress causes muscle to scar up inside and limit function and causes pain. May be another cause of pain in the piriformis."

Can you tell me about Piriformis Syndrome?

There seems to be a lot of people that are under the impression that they have a piriformis syndrome. I would like to tell you a little about the tissues in the immediate vicinity of the PSIS and SIJ so that you might be able to better figure out just where the problem lies. All of these are directly related to anterior rotation dysfunction of the SIJ. Pain just at and below the PSIS is the insertion of the superficial long posterior sacroiliac ligament. This is the most superficial as the name indicates. Pain just medial to the PSIS is in the short posterior sacroiliac ligament. Pain just below the PSIS that runs on a diagonal line toward the greater tuberosity (sorry, but you have to look it up) is a separation of the fibers of the gluteus maximus muscle. Below the PSIS and just lateral to the sacrum and deep is back side and most painful part of the sacroiliac joint itself at the posterior inferior iliac spine. This pain is frequently mistaken for the piriformis. The piriformis muscle comes off the inside of the sacrum lower down and travels nearly horizontally toward the

greater trochanter. This is quite deep and the top part of this muscle is below the PIIS and the body is further down yet. You need to correctly determine just what it is that hurts. Inappropriate stretching for the piriformis may increase the pain. The piriformis syndrome is essentially always secondary to the SIJD and will go away once the SIJ is corrected to the self-bracing position. You may need a little gentle but deep massage to relieve local swelling in the area.



Would injections into the piriformis help?

Instead of giving the injections into the piriformis muscle, try a local anesthetic and steroid into the area of the posterior INFERIOR iliac spine, which is the location of the S3 subluxation and very near to the piriformis muscle.

Is there anything else that would mimic piriformis pain?

The piriformis has an origin on the lower inside surface of the sacrum and a secondary origin on the superior margin of the greater sciatic notch of the innominate bone. When the SIJ goes 'out' these two origins are separated and hurt the piriformis. This causes a deep pain from a few inches lower than the PSIS almost straight across to the top of the greater trochanter. Correction of SIJD relieve the stretch on the piriformis. Same with the gluteus maximus. The gluteus maximus. Part of the gluteus maximus originates from the back of the sacrum and part of it originates from the back of the pelvic bone (innominate). When the SIJ goes out the pelvis moves up and out on the sacrum and also separates these origins. This will hurt you on a line from just below the PSIS diagonally downward to the middle part of the greater trochanter. To reverse the separation you must correct the SIJD. If you have been unstable for a long time, you must continually correct the SIJ several times daily. If you have surgery without correction, these problems will always be with you. Please read this several times and try to assess you own problem, piriformis or gluteus maximus or both?? The other problem is that when the innominate rotates downward on the sacrum it stretches the nerve roots and this can cause numbness or weakness in the legs. Correct the SIJ!



I would like to try the glute exercise, but anytime I bend forward at the waist I seem to really flare my symptoms. Do you

have any idea why this would be?

You said that when you lean forward from the waist that it hurts your back. This is because when you lean forward from the waist your trunk weight is shifted to the front of the pelvis and forces it down in the front and up in the back. This is what causes SIJD and what will make it worse. You simply cannot safely lean forward from the waist unless you tighten your tummy muscles and pinch your buttocks together to stabilize your pelvis.

My PT told me to stretch my hamstrings by lying on my back, and using a blanket to hold my leg straight up in the air. Or to hold leg up against a wall, with my opposite leg down through a doorway. I take it from the no straight leg lift that this stretching is hurting me. Can you suggest an alternate hamstring stretch?

Sit on the edge of a bed or table with your right leg out straight on the bed and left foot on the floor. Bend your trunk down and reach for your right foot. S t r e t c h. Now turn around and do the same with the other side. Passive straight leg raising is okay, but when you go to lift your leg with your hip flexors, the weight of your leg pulls the pelvis forward and increases SIJD.



I think that my muscles have been so tight and adaptively shortened due to the length of time I've had this that they simply won't permit the corrective exercise to happen. I wonder if it is again because of the adaptively shortened and tight muscles. Would it explain why the exercises are difficult for others?

You are correct, flexibility is important. Muscles left in a shortened position for a long period lose sarcomeres (muscle cells). They can gain muscle cells if subjected to stretching, but the stretches must be given over a relatively long period of time to allow sacromere addition. If the stretches are too hard, you may cause small muscle tears. However, muscles only have a relatively indirect control over the sacroiliac joint. Other factors include swelling in and around the joint that prevents correction and possible adhesions. Usually just correction of the joint restores most normal movement. Perhaps it is just my age, but I cannot recall any instances of muscle shortening, or adhesions that prevented correction. Local swelling has prevented complete correction for a day or so, but no longer. Joint instability is a cause for recurrence, but will not prevent correction.

I started serious exercise and alignment. At that time, I could not sit for more than a few minutes. I have made progress and feel quite normal when sitting most of the time. Yesterday, I felt slight muscle pulling and discomfort near the SIJ. When this happens, I am able to sit without any

discomfort, but the muscle around the SIJ gets sore. I immediately did the alignment technique - push your leg against the wall. This goes away in a day or so and seems to repeat itself every 5-15 days. Is this a pattern you have noticed - that the degree of misalignment becomes less and less?

There is a wide variety of how long the correction lasts, depending upon the severity of the initial onset, physical condition, posture, work related stress, sitting time, effects of relaxin in women, etc. It sounds to me as you are doing quite well, correcting at the first sign of soreness. It is always helpful to do an easy corrective exercise when you go to bed just in case it went out sometime during the day, as a preventive measure- kind of like brushing your teeth. It can always go out if you aren't aware of your posture, or you don't do your pelvic tilt when you lean forward, etc, but if you can put it back in by yourself and prevent recurrence most of the time, it is no big deal. If you have a problem with sitting, sit with a kneeling pad (about 16"L x 8-9"W x 1"thick) under your upper thighs, back to, but not underneath your ischial tuberosities (sitting bones).

Tell me about adhesions. When you say that stretches need to be done over a long period of time, do you mean stretching in general, or the stretches like your first corrective exercise? Does this mean that if I just keep doing it the SI joint will eventually self-correct? How long should it take?

Adhesions may occur as a result of injury or with lack of use and the joint may stick together or two adjacent muscle layers may stick. Each individual exercise period of stretching should be a sustained controlled stretch, but it may take many exercise periods to regain length in a shortened muscle. Your SIJ will probably never self-correct. You must correct it with appropriate corrective exercises or have someone specifically correct it for you.



What can a therapist/patient do to control erector spinae muscle spasms while trying to continue with physical therapy? I read where a single injection into the muscle eliminated spasms all together in 75% of patients where low back/pelvic instability was still present.

I don't think she has ever been fully corrected in to the self-bracing position. Also spray the erector with ethyl chloride spray and then stretch. Injection into TPs may help. Local ice massage over tight muscles. Sometimes this is related to tight vertebral facets. Try massage with methyl salicylate (the salicylate actually goes through the skin and inhibits both types of prostaglandins). May need some flexibility exercises.

I developed severe muscle tightness all around my hip - especially

in my glute. I've had x-rays, MRIs, and bone scans and nothing indicated any problem. Any suggestions?

The pain in your glute is most likely at the posterior inferior iliac spine, which is the location of the back part of the sacroiliac joint. The innominate bone (big pelvic bone) subluxates slightly up and out on the pelvis. This may give you a high hip on one side and it also may separate your gluteus maximus on a line from just below the posterior superior iliac spine toward the greater trochanter. The nature of this dysfunction also stress the lateral hamstring muscle and may even sublux the head of the fibula just below the knee. In any case you **MUST** correct the subluxation by moving the back part of the innominate downward on the sacrum and you **MUST** treat both sides.

Disc Related



I am quite worried about the bulging disc that developed one year after my injury at L4/5, should I be?

Don't be concerned about the bulging disk - unless you get some weakness in your foot and leg. It takes a year for ligaments to heal. I suggest to keep correcting it yourself and use the SI belt to hold it in. Get your abdominals working to also hold it in. Now if it goes out, put it back in right away. It should start to stay in for longer periods as you learn to control it. If it continues to improve, keep it up. If the instability continues, consider prolo, but only in the superficial long posterior sacroiliac ligament, not in the iliolumbar or sacrotuberous.

I wonder about having the SI fixed with disc problems. I was always under the opinion that fixing the SI joint causes stressing on the discs, but I may be completely uninformed. I do know that when I had my SI joints fused, I could feel a tugging on the lumbar area. I know nothing of any of this other than what I can learn from the experts. So what should someone do if they have both disc problems and SI problems? Seems like if you fix the SI first, you are putting added stress on the discs, which, I suppose you then have fixed.

Of course SIJ fixation stresses the disks. Even when you do a correction prior to fixation and the SIJ is fixated in the self-bracing position with proper tension on the iliolumbar ligaments, you will still lose the function and flexibility in those joints. Once this 'shock absorber' function is lost there will be more stress both above the SIJ in the lumbar spine and disks and below in the hip joints. I personally believe that SIJD may

be a major cause of hip disease.

To me it is a no-brainer. Fix the SIJs to restabilize the disks and prevent further disk problems except if you have numbness AND weakness in the legs and feet. Many times the disks degenerate without causing any symptoms, but when the SIJs lock up you are in a world of hurt.

So what would you recommend if there IS numbness and weakness in legs from discs involvement?

Numbness and weakness from disk involvement is likely a sign of nerve root compression. The pressure should be relieved by surgery or it can get worse.



I had an MRI and got my report and I do not have a protrusion according to the report. It says I have degenerative disc disease at L4 and L5S1. I will wait and have my dr. read the films and see what he notices. On the last MRI he noticed at L5 I have a "deformity". I need to question him more about that. At this point I believe the discs, (L5, L4) and those facets and the SI are my pain generators. Any suggestions?

You might mention to your physician that the lesion in the sacroiliac joints loosens the iliolumbar ligaments and destabilizes the disks at L4, 5 and S1. This is probably the principle cause of disk disease and you can restabilize the disks by correcting the problem in the sacroiliac joints, which restores tension on the iliolumbar ligaments.

ARTHRITIS



SIJD and o/arthritis in the joint. How does that affect people's perception of pain in the joint from what you have seen? I know how I felt. What does it physically do from your stand point? How does it affect the level of pain also?

I can't say exactly how arthritis in the SIJ affects the pain level. Not enough solid research yet. I know that there is a certain amount of wear

and tear on the joint surfaces by the 30s-50s, but I don't know if it is directly associated with SIJD. From what I can learn and discern, inflammatory changes in the joint are directly related to SIJD, but not enough practitioners are keeping the joint well enough corrected to know if or how it will affect the onset of arthritis into old age.



So it isn't like arthritis of the hip: if you wear off the cartilage in the SI and get an arthritic joint, it may or may not actually result in pain? Seems like it would hurt if it is bone on bone, unless it fuses. Don't people fuse naturally when they get older?

The SIJ is a really strange joint. It is a really high friction joint and one joint surface does not move on the other. The sacral articular surface is composed of thick hyaline cartilage, although on the ilial side the cartilage is poorly developed and made up of a thinly stacked layer of chondrocytes. The sacrum is 'gripped' and moved by the innominates.

Dorman said that the high friction of the joint surfaces functions as tiny gears. When walking and the innominate on the side of loading moves down as the contra lateral innominate rotates up, the sacrum is caused to incline laterally toward the side of loading. The sacrum then moves on an oblique axis of rotation. This facilitates loading and drives the rotation of the upper trunk. I have a lot on this and normal gait on my CD. Cassidy found that even in old age that the SIJ seldom ankyloses. Cassidy also reported that early signs of iliac osteoarthrosis occur by the third decade of life in males and by the forth or fifth decade in females. In most cases the joint remains patent throughout life.

Has anyone on this forum experienced arthritis of the hip due to underlying SIJD?

The SIJs function as force couples which are kind of like shock absorbers. When they are 'out' they don't function properly and it increases loading forces to the hips. Changes in leg length associated with dysfunction may increase the loading forces. These increased loading forces also 'punish' other adjacent tissues and can increase pain in the hips, pelvis and back.



In your experience have you come across cases where SIJD

was thought to be present when in fact arthritis was really the underlying problem?

No. The arthritis is usually secondary to an improperly functioning joint. I have seen thousands of cases of SIJD with "normal" SIJs on x-ray, catscan, etc. You can't tell on an AP picture because the joint is opened somewhat and looks essentially normal. You can't see it on a side view because of the bone density. I have been able to see it on x-rays before and after mobilization. Chamberlain, back in about 1930 identified a number of these on stereogrammetric radiograms. Unfortunately too many physicians think that just because the joint looks normal that it is normal and an incredibly few understand how important it is to restore self-bracing.

Prolotherapy



What is Prolotherapy?

Prolo is the injection of a chemical irritant into ligaments to cause them to lay down connective tissue (scar tissue) in order to make them stronger to stabilize the joint. Specifically in the sacroiliac joints, I have a strong opinion that only the long and short posterior sacroiliac ligaments should be proloed.



I am contemplating prolo, any suggestions?

There are too many physicians giving prolo into the various sacroiliac ligaments indiscriminately. I think prolo should be injected only into the long and short posterior sacroiliac ligaments and not into the iliolumbar or the sacrotuberous ligaments. When the SIJs rotate anteriorly and sublux at the S3 segment, they loosen both the iliolumbar and the sacrotuberous ligaments. If you prolo those ligaments without correcting the joint, they will tighten and shorten and preclude the possibility of correction.

When your SIJ goes 'out' it stretches the long posterior sacroiliac ligament the most and may cause it to tear loose somewhat from its attachment to the posterior superior iliac spine. Prolo is important to use here because it scars up this attachment and makes it stronger. When injected into the ligament properly, with micro droplets, it will toughen the ligament to prevent recurrence of low back pain. Done improperly with

too large droplets may weaken the ligaments.

I am now of the opinion that prolo might be most helpful early after the onset to toughen the long and short posterior SI ligaments and prevent failure of the collagen. Women have a slight disadvantage because of the hormonal ligamentous laxity caused by relaxin, but it is my thinking that if the SIJs are held in a corrected position about 7-10 days before their period when the relaxin is active that the ligaments may toughen up again in the shorter position. There is still a lot of work that must be done in this area. All I can say is correct the SIJ, strengthen the abs, practice good posture, lose weight and exercise, and hold your tummy tight every time you lean forward to do anything.

How long to try your techniques before considering prolo or whatever next step? I keep thinking about when I had ovarian pain years ago, and how after my surgery, I had very similar pain to what I have now and wonder if any of that pain was SIJs all those years ago. Maybe that means it will eventually go away???

Essentially, if you are hurting, your SIJ needs correction. It is possible to be quite stable when both SIJs are subluxated, but it's not very comfortable. I think if you have had SIJD for more than a couple of months that you have probably undergone some collagen failure in the long posterior sacroiliac ligaments and prolo is indicated, but only in those ligaments.

RE: Abdominal pain. There is a point in your abdomen on a line from the umbilicus to the anterior superior iliac spine two inches from the umbilicus, called Baer's sacroiliac point. I remember a 35YOF that had complained of abdominal pain for four years and had both ovaries removed with no relief. She came to me with LPB and was free of pain in her SIJs and her abdomen in about ten minutes after correction of her SIJs.



Should I still do my exercises while getting prolo?

Yes, As you may already know, proliferant injections are the injection of a chemical irritant into the ligaments, cause inflammation and stimulate the production of scar tissue to strengthen and shorten the ligament, increasing stability. This is indicated in unstable ligaments. In the sacroiliac joint I feel strongly that proliferant injections should be limited to specific weakened ligaments such as the superficial long and the short posterior interosseous ligaments. In the event of some instability of the pubic symphysis, it may also be used there. I am strongly opposed to

any shotgun technique that injects ligaments indiscriminately. I think the injection of the iliolumbar ligaments and the sacrotuberous ligaments is totally inappropriate. With the injections, you must continue to do the corrective exercises so the ligaments will heal properly.

I'm sure that I have had all those ligaments injected with prolo. Does that mean I'll never get over this? I didn't even know about this when I was having prolotherapy. Am I doomed?

I don't know if you are doomed or not, but if there is a chance at correction, you will need someone who really understands the problem, persistent attempts at stretching and perhaps some ultrasound on the ligaments to help soften them for stretching. Some very specific surgical repairs of the appropriate ligaments could do it.



I asked the doctor which ligaments he was going to inject and they included the iliolumbar ligaments and the sacrotuberous ligaments. What can you tell me that I can communicate to him to suggest otherwise? In other words, why not inject these as well?

You may tell him from me that when the SIJ goes into dysfunction, the innominate moves cephalad and laterally on the sacrum, stretching the long posterior sacroiliac ligaments, which then undergo some failure of the collagen. These must be proloed. At this time, the iliolumbar and the sacrotuberous ligaments are loosened. When the iliolumbar ligaments are loosened, the L4, 5-S1 vertebra are destabilized. When you correct the dysfunction then you restore tightness in the iliolumbar and the sacrotuberous ligaments and restabilize L4, 5-S1, as well as take the tension off of the long posterior sacroiliac ligament. If you prolo the iliolumbar ligaments and the sacrotuberous ligaments first, they will shorten and tighten and you will never be able to correct the original dysfunction.

Should I be stretching any of these ligaments?

Nothing needs to be stretched. When the SIJ rotates, it OVERSTRETCHES the long and short posterior sacroiliac ligaments, so that you must avoid stretching them any more with increased anterior rotation. SIJD decreases tension on the iliolumbar and sacrotuberous ligaments so they do not need stretching, per se, but you do have to correct the joint to restore normal tension on these ligaments. If you have prolo, injections should be limited to the long and short posterior sacroiliac ligaments. Please understand that this is only my best guess. I have never been able to examine you and am not

familiar with any therapists in your area. The only other think I can suggest is to call around to different P.T.s and D.O.s and ask them if they use the DonTigny method for treating the SIJs.



I had the iliolumbar and sacrotuberous injected with prolo and got stuck in the wrong position. That's why you said to stretch those two ligaments. Now I'm more confused than before. Does DDCE do the stretching of those 2 particular ligaments? Or how do you stretch them?

DDCE should help to stretch the iliolumbar and sacrotuberous as much as they need to be stretched. You might also try lying on your back with a small rolled up hand towel should be at the top the sacrum, with the roll up and down under the sacrum and pulling both knees to armpits and lie in that position for several minutes if you can tolerate it. It takes a persistent prolonged stretch to stretch ligaments.

When the long & short posterior sacroiliac ligaments are stretched for a long time, resulting in viscoelastic failure of the collagen ... in your experience, are DDCE enough to correct and manage this?

You have no choice but to do the **DDCE**. If you don't make your correction the problems will get worse and you will become unstable and the disks will be subjected to more shear forces. This will not restore elasticity to the long and short posterior SIJs, but will only keep them from getting worse and increasing your instability. The prolo will help to strengthen and shorten the long and short posterior SIJ ligaments and restore stability to the SIJs.



If I can get prolo and ligaments get tighter, still I need to continue exercising rest of my life?

Even with prolo when the ligaments are stronger, you should probably do some maintenance exercises. If your abdominal muscles are weak and if you carry extra weight on the front of the pelvis, the constant strain on the posterior ligaments may eventually cause the prolo to fail. This is only my opinion, but

they don't have enough long term results on this yet to say for sure. Even if the prolo or surgical fixation holds and your pelvis is solid, weakness in the abdominal and weight on the front of the pelvis will cause the pelvis to tip down in front and increase the lordosis (curvature in your low back) to increase. If the lordosis increases, the intervertebral foramina (openings between the vertebrae where the nerves come out) will become smaller and may compromise the nerves and the disks will be subject to increased shear forces. So keep your tummy in and your back flat forever.

Sacroiliac Surgery

Can a tear in the sacroiliac joint heal itself over time? Does it need to be, or is it even possible for it to be, surgically repaired? How quickly is the cyst formed if synovial fluid is leaked out...weeks..months..years?

Sorry, but I just don't know. Will depend on how bad the tear is, if you are getting and keeping the joint corrected, if it is getting worse, etc. I don't know anybody that is repairing these tears.



Should I have SI stabilization surgery to correct the problem?

I think there is big money to be made in SIJ surgery. First, because there are so many people with the problem and no one is properly addressing it. Fixation is and should be a last resort, but I feel strongly that certain surgical procedures could be used to restore and preserve function in the unstable joint. I think prolo should be used at the first sign of instability.

In the grossly unstable, it is my opinion that it may be possible to

- 1) correct the joint and then
- 2) transfer tendon from the sacrospinalis or multifidus to strengthen the superficial long posterior sacroiliac ligaments,
- 3) prolo this area as well as the pubic symphysis and then
- 4) fixate the SIJ with two screws (not through the joint, but directly behind the joint, leaving the joint intact.

Leave the screws in for several months to allow healing of the ligaments and

then remove the screws. In the meantime the patient should be put on a weight loss and isometric exercise program with slow general conditioning and limit any exercise that might disrupt the symmetrical position of the pelvis. This seems to me to be a relatively safe, superficial surgical approach to preserve function, but undecided, whether it would work or not.

Let's say I had the SI fixation & fusion on just one side. For whatever reasons, the fusion did not take. If I were to have the screws removed, what would I be left with? Could I hold my own weight? Could I walk at all? I know that some, but not all of the joint was cleaned out for the fusion. Would any of that ever grow back?

You would be left with your original dysfunction plus any secondary changes that have occurred as a result of your surgery. However, with no further restrictions in the joint, you may be able to get a correction of the dysfunction and it may be possible to strengthen the weakened ligaments with a transfer of tissue from the adjacent tendon of the sacrospinalis, although I have never heard of anybody doing this before. Assuming that you still have your posterior interosseous ligaments and your sacrotuberous ligaments, you should be able to support your own weight. You must work really hard on your pelvic tilt, and you may require a good lumbosacral support.



What if a person has to have an adjustment done on say the lower back that has gone out of place and you go to a Chiro to have it adjusted. I had fixation and fusion done and I was having some low back pain and my DO doctor said I needed an adjustment to put it back in he had me lay on the side and he rocked me till it popped back in place and of course I did feel better again but I was scared to death for my SIs. This time I lucked out and nothing happened to them. But what does one do now if they need adjustments on their backs? He did twist me with shoulders back while hips with the other way but he didn't jump down like on me just rocked me. Any suggestions?

Hard to say, but I think you are safe if you exercise when standing (rather than sitting) and do some gentle trunk rotation side to side and side-bending by reaching your hand down the side of your leg without twisting your trunk. Stick with your D.O. as long as he knows your history.

What to do and not do after SI stabilization surgery?

I have had no experience in rehabilitation of people who have had

fixation or fusion of their SIJs so I can only give you my opinion on what you can do. You have to allow the fixation to heal, but these joints are normally active in walking and stair climbing, hence when you start moving one leg very far forward and the other back, you cause a tendency to move in those joints so you should not take overly long steps or run.

If you have to use steps, go up and down with one leg at a time, using your good leg to lift you and lower you. Use ramps and elevators when possible. When you get in and out of a car, sit and then swing both legs in or out at the same time. It is probably safe to bring both legs up or down together, rather than one at a time. Don't twist your trunk too far when sitting. No straight leg raising, although, while you are sitting, you can straighten one leg and then the other at the knee, preferably with some resistance.

You can do isometric exercises (tension without movement) to essentially all muscle groups a few times a day. If you get tired from sitting around, it may be an accumulation of carbon dioxide in the lungs from not breathing deeply, so take several slow deep breaths to clear. If you work at a desk and have to pivot from one side to the other to file, etc, use a chair or stool with a pivoting seat. Healing time should not mean inactivity. You can do arm exercises or wear light wrist weights during the day. Practice good posture.

Do abdominal crunches within the limits of pain and practice pelvic tilts when you are standing. Give your PT these parameters and ask him/her to work within them and increase the intensity and movement as tolerated. The SIJs should probably have at least two months to heal, and even then, no jumping or coming down hard on one leg or the other - you should be able to walk normally and handle steps although you probably shouldn't run up and down them. Stay as active as possible within these limitations. Don't do anything to hurt yourself.

I have had this pop since my car accident 2 1/2 years ago. It only pops when I lower my left (bad side) leg to the floor in a sitting or lying on back position. I had bilateral fixation of SI on Dec 11, 01 (I am now 2 days shy of 6 weeks post-op) and I still get the pop when I do my exercises protocol, mostly when I lower my leg after the piriformis stretch. Is there anything, in your opinion, that could help with this?

I'll take a guess. I think the front of the SIJ is opening and closing a little. When you flex your hip the pelvis on that side wants to move down in the back a little and to compensate it opens the front of the joint a little and the convexity of the ilial surface tends to rise a little bit out of the concavity of the

sacral surface.

(I am just thinking out loud here). This spreads the joint just a little and may cause a pop as you lower it. When you go to lower the leg after bringing it up, try holding your belly muscles really tight to stabilize the pelvis when you lower the leg. I would be very cautious about any stretches that cause the pelvis to move up on one side and down on the other. This could put some pressure or shear on the screws.



I spoke with one more orthopedist who said that pressure is the wrong word for me to use here (even though that's exactly what it feels like to me). That the more intense pain I feel in disc area after SI surgery is probably because my lower spine is having more excess movement to compensate for the fixation of the SI joints. He said it is similar to a spinal fusion in that the fused area is fixated and the areas above and below it have to compensate on average 30% more. He says when one area is fixated or fused, the other areas tend to have excess motion, and if these areas are "bad" in some way, then there will be more pain in those areas. And this is why SI surgery is not performed on people with disc problems. Anyway, that is just what he stated. Also, the only theory I have come put with regarding compression forces on disc causing pain is if the disc has degenerated/weakened to the point where it can't handle normal load. I guess this could possibly be a scenario whereby compression loading could cause pain?

Your orthopaedic surgeon is absolutely correct in that when you have an SIJ fixation the area above it will have to compensate for the loss of motion in the SIJ. The other area that will have to compensate is the pubic symphysis. I have long been an advocate of preserving function by strengthening weakened ligaments. This is why prolo can be a help when done to the specific weakened ligaments, that is to the long and short posterior sacroiliac ligaments and to no others. Of course the SIJ must be in a corrected position for all of this and few practitioners know what that is.

I had SI fixation and I have still have SI pain, any suggestions?

It is my firm opinion that the biggest cause of pain after fixation is that the surgeon did not have the SIJ firmly corrected to the self-bracing position prior to fixation. That is with the margins of the joint aligned, the surfaces congruent. And tension restored in the sacrotuberous, posterior interosseous and iliolumbar ligaments. Left uncorrected, this leaves the L4,5 and S1

segments unstable and subject to increased shear forces that may result in disk disease, spondylolisthesis and facet problems. A fixation may not be effective if the joint is in a subluxed position prior to fixation.

Spreading The Word



Your biggest hurdle in all this would be the marketing. Actually, if some of the people here murmuring about getting articles in popular women's magazines and talk shows, etc, were successful -- and if the submissions were carefully monitored for accuracy, you might be able to get a foot in the door with the layman's culture. It would take a lot of time and a lot of hard work. But seriously, I can do a mean press release. If you get to that point I would be glad to help.

Thanks for the offer, I am just not about to do a lot of advertising for the SIJ. I have thought about the publicity angle for a long time, but I think any publicity must be directed toward the care givers rather than the patients to encourage them to examine the evidence on the SIJ. Yet I believe the information per se is important and should be disseminated. Patients should not have to diagnose and treat themselves because of the negligence of almost the entire medical community. And these are really intelligent people who are absolutely convinced that they understand low back pain and it must be the disk and there is no such thing as SIJ.



Do you have anything that will help my doctor learn more on SIJD?

If you are interested, I have developed a CD rom in PowerPoint on the SIJ with all of the functional biomechanics, pathomechanics, evaluation, management and supportive research. I have also outlined a surgical scenario to preserve function in the unstable joint. It has over 130 illustrations, 90 references and 639 slides. This is a detailed, professional program. I have another CD-rom for patients with a Dynamic Core Exercise program, a printable PDF program and a video of me demonstrating my corrective exercises. Please order these on www.thelowback.com.

