

## SET TALK

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### FRACTURES & BROKEN BONES.... NOT A VACATION

It seems that in every workshop I teach there are questions as to when and how to treat soft tissue involvement associated with fractures or broken bones. It is also quickly apparent that the number of suggested recommendations equals the number of participants with many varying and sometimes dangerous opinions. This concerns me because there is a potential for creating unnecessary complications for both the client and the massage therapist: not only is it possible to exacerbate the injury by applying inappropriate techniques at the wrong time which could be devastating to the client's recovery, but there could also be potential legal problems for the massage therapist!

Let's address the legal problem first. We all know it is advisable to have the doctor's permission to treat an injured area. However, it is essential for you as massage therapists to proceed cautiously and make your own specific observations. Doctors, chiropractors, physical therapists, and other medical personnel, in spite of all their progressive diagnostic tools, have been known to misdiagnose fractures. When a client presents with an injury, the first step for massage therapists is to note the severity of the injury, and determine whether qualified medical personnel have examined it, taken x-rays or MRI's, and/or made a diagnosis. The next step is to determine whether you are comfortable treating based on that diagnosis, or do you still have questions about the injury and need further verification. *A case in point:* I had a client who came to me for swelling in her foot. She had stepped off a curb while carrying a suitcase at the airport and slightly turned her ankle. She had been examined at a walk-in clinic by clinic personnel who chose not to take x-rays and was told that she had a slight sprain. When I looked at her foot, the sole of her foot looked very bruised along the outside under the cuboid process. I was not comfortable working through these areas until she had an x-ray taken to verify there was no fracture. After the x-ray, she called to inform me that she had indeed sustained a fracture at the cuboid process and her foot would be in a walking shoe-cast for the next 6 weeks. Had I worked over the fracture, most probably exacerbating the fracture, I could have been held legally responsible. So, our observation skills are absolutely necessary to avoid becoming legally entangled in the oversights of medical practitioners. If you are still in doubt, wait a week and re-evaluate. By then a more severe injury is likely to become apparent.

I have worked with many clients in casts or with external apparatus for fractures. Before working on these clients, I want the physician's permission, and, if at all possible, some guidance as to when and where to work specific areas. My first concern when I do start to work with these clients is how the fracture and/or cast is affecting the overall body structure. Imbalances in the body structure, due to the initial trauma and/or the restrictions and compensations caused by the cast, are often overlooked and can cause a considerable degree of discomfort for the client. Also, these imbalances often cause structural stresses in the area of the fracture that can affect the healing process and the alignment of the bones. Therefore, balancing the structure is important for the alignment of the client's body and comfort, as well as the alignment of the bones that have been fractured. As you can see, by working in other areas away from the fracture we as massage therapists can make a significant difference in the total healing process for the client without ever working close to the fracture, and we can prepare the way for more effective treatment and normalization around the fracture sight when it is ready to be treated.

The second concern is swelling. Usually, when there has been a trauma to the body severe enough to cause a fracture, there is considerable swelling in the area. Oftentimes, this swelling is creating excessive pressure on the actual fracture and within the cast. In addition, the swelling is preventing the body from sending the proper energies for healing to the area through the circulatory system, the nervous system, and the meridian system. Therefore, especially with fractures in a limb, it is essential to reduce the swelling as soon as possible. Begin working above the fracture closer to the trunk where you will not involve the damaged tissues or put pressure on the fractured bones, and concentrate on moving the fluid with the venous flow back toward the trunk for absorption back into the body.

JT, a 60 yr old male, was referred to my office by his physician with an apparatus applied to his ankle after having surgery for a broken ankle – the apparatus was attached to the outside of the lower leg and ankle by screws and pins. I contacted his physician prior to initiating any treatment, and was given permission to do structural balancing and soft tissue work above the break. He would follow the mending process of the bone and let me know when it would be okay to work directly in the area of the break. When JT came for his first session, he was limping badly and barely able to walk even with the help of a cane. He complained of hip and low back pain, and his leg was very swollen from the knee down. During the first several sessions I released the fluid build-up above the break at the ankle

and focused on balancing his overall structure. As soon as the apparatus was removed and the doctor indicated the ankle was sufficiently healed, I treated and normalized the soft tissue in the area of the break where the apparatus had been attached, and then integrated the structural balancing protocols. He reported a 100% improvement from the discomfort he was experiencing prior to the first session, and his physician commented not only on the improvement of the scar tissue and range of motion of the whole leg, but also JT's attitude.

Once a cast or apparatus has been removed, and the break has been declared healed by medical diagnosis, you can start working in the area of the fracture. There will usually be considerable atrophy and scar tissue resulting from the trauma and immobility of the area. First, you want to rejuvenate the area by promoting increased circulation and energy flow. Most effleurage, petrissage, vibration and friction techniques will effectively accomplish this. Then you need to focus on releasing the range of motion restrictions of the joints affected by the atrophy. I have found directed myofascial unwinding strokes to be the most effective for mobilizing the restricted fascia that has shrunk and splinted around the healing tissues. Other techniques that are also effective are deep friction and vibration. Once the myofascial holding pattern has mobilized, you need to concentrate on normalizing scar tissue, adhesions, and tightened muscle fibers. In my experience deep slow strokes that only move with the release of the tissue are the most effective for accomplishing this. (*Please refer to my article on Deep Tissue Techniques in the Nov/Dec. 2001 issue of the Massage Message, or the copy of that article on our website.*) Since each client's tolerance is different, you will need to work within the parameters of that tolerance and the individual's rate of recovery. Often, the tissues will bruise very easily. Since they have just recently been traumatized, be extremely gentle and don't try to do too much in any one session. You will be amazed at how quickly the range of motion and strength return when you assist your client with these techniques.

I have seen many clients with old healed breaks who are still limited as to strength and range of motion years after the incident. When clients present with problems from old breaks I need not be concerned about damaging the area due to weakened bones, so I can start working directly in the area of the old break in the first session. However, I also find significant structural distortions still present in their body from the accident or injury that caused the break, and further distortion from their compensation when they were walking and standing with the cast on or on crutches. Many of these problems prevent the normalization of the structure and balance that would support the injured area and allow it to be

fully functional. So, even though I can work in the area of the break in the first session, I want to work within a paradigm that will correct the structural imbalances to be most effective. Once the structural imbalances have improved, I will spend more time working directly in the tissues surrounding the healed break. Myofascial unwinding strokes will effectively release the restricted holding pattern surrounding the muscles and joint. Once the old pattern is released and the tissues are no longer bound together in tightened holding patterns, I will use individual fiber strokes on the tightened fibers and scar tissues. Even though the break may have been healed for five or ten years, there is often a substantial change and improvement in the muscles, fascia, and strength of the area with this work.

Sara, a world class down hill skier, came to me five years after a terrible broken ankle that had taken her out of skiing permanently. Her injured ankle looked twice the size of her other ankle, and all the soft tissue was bound in a large mass around the trauma area. She had had a compound fracture followed by surgery to remove bone fragments and insert a plate. Her ankle had very little flexibility and she walked with a restricted gait. She came to me for a hip problem on the same side that had developed due to the abnormal gait. She did not expect any improvement in her ankle. While I initially worked with the imbalance of the hip causing the hip problem, the ankle's affect on the hip necessitated working that whole area which resulted in dramatic improvement. The large mass of tissue bunched and binding over the break was normalized and reduced to close to normal size by releasing the myofascial holding patterns and using individual fiber strokes. The stiffness of the ankle decreased, and the range of motion improved with each session until it became almost normal. She left Florida to go back to Colorado where she is now skiing as a ski instructor, and once again able to take part in the sport she loved so much.

To summarize the important treatment goals and approaches:

- Be sure injuries are properly diagnosed before applying massage techniques.
- View the injury with its relationship to the overall structure, and work to improve the structural balance, which will aid in the healing of the trauma area.
- Traumas that heal in balance heal better.
- Acute breaks heal faster when the swelling is reduced. Work above the break with the venous flow until the break is healed.

- Myofascial unwinding strokes will release the splinting and the holding patterns in the soft tissue due to the break, and may be applied above the break before the break heals.
- Individual fiber strokes normalize scar tissue and lengthen shortened fascia and muscle tissue allowing a return to full range of motion after a recent break has been healed.
- Old healed breaks still need to be worked within structural balance for full recovery.
- Soft tissue around old healed breaks with apparent permanent scarring, respond with myofascial unwinding.
- Individual fiber strokes can normalize scar tissue and lengthen fascia and muscle fibers around old healed breaks allowing an improved range of motion.

I hope the information in this article will increase your awareness of effective treatment for supporting your clients with these types of injuries. Keep up the good massage therapy until we communicate again in the next installment of SET TALK.