

Neural Manipulation

Hands-On Work to Promote Nerve Tissue Health

by Judy Russell, RPT



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Massage therapists are manual therapists. The acquisition of new and precise assessment and treatment techniques enhances the overall well-being of your clients. One such treatment technique is Neural Manipulation.

Osteopath and physical therapist Jean-Pierre Barral, DO, MRO(F), RPT, developed this technique. Together with his colleague Alain Croibier, DO, Barral teaches manual therapy principles for creating freedom of movement within the nervous system. (As Gail Wetzler, RPT, who directs the Department of Visceral Manipulation for the Barral Institute in North America, noted in her forward to Barral and Croibier's book, *Manual Therapy for the Cranial Nerves*, "a nerve only functions correctly when it is able to move freely in its surrounding tissues.")

Correct Neural Fixations

The specificity of the assessment and treatment techniques acquired in the Neural Manipulation curriculum allows you to access neural fixations, determine how they might affect the body both locally and globally, and then correct the

dysfunction. To this end, knowing your anatomy is essential. As Barral said, "It requires skills, but also the continuous pursuit for anatomical knowledge."

Let us consider the following two questions along with the answers, as an exercise in understanding how your knowledge of anatomy will grow with Neural Manipulation:

Question: What do the knee joint capsule, the hip joint capsule, the sacroiliac joint, the adductors of the hip, pectineus, the ovary, and the popliteal artery all have in common?

Answer: The obturator nerve.

The obturator nerve, arising from L2-4, has both a sensory and motor component that can affect or be affected by the structures mentioned above. An inflamed ovary in pubescent girls

can compress the obturator nerve that passes behind it, causing medial knee pain. This is often mistaken as pain from chondromalacia patella. Osteitis pubis is frequently diagnosed when the real perpetrator is compression of the obturator nerve somewhere along its length. A few items to consider in our assessment and differential assessment of the compression are viscera, a vertebral joint, a disc or fascia.

Question: What do the pleura, the parietal peritoneum, the capsule of the liver, the gall bladder, the subclavian muscle, the pericardium, the capsule of the shoulder joint and C4 all have in common?

Answer: The phrenic nerve.

We take approximately 24,000 breaths a day. Our heart beats 120,000 times per day. The phrenic nerve is intimately involved with the function of these vital structures.

While the phrenic nerve is motor for the diaphragm and the subclavius muscle via the subclavian nerve and joins motor slips to the shoulder joint capsule, it is sensory for parietal peritoneum and pleural irritation. This means that any lack of mobility in these structures could promote chronic spinal restrictions, muscle tension and should be considered when assessing frozen shoulder syndrome.

Neural Glide

The key in Neural Manipulation is to find the most significant area of reduced mobility. According to Barral, mobilizing

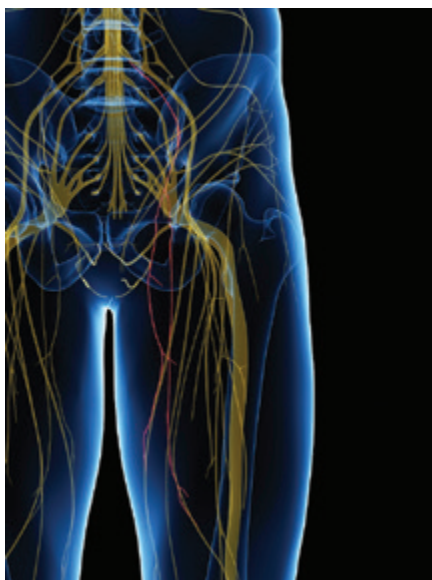
a nerve focuses on facilitating neural glide both in terms of its surrounding extra neural tissue, and intra neural connective tissue layers. This distinguishes his work from simple neural stretching.

We must consider the fascial rings and tunnels in which nerves exist, and restore the slide of the nerves within these structures to enhance their function. Our goals involve the following:

1. Achieve overall balance in the nervous system. As the peripheral nerves are an integral part of a reciprocal tension membrane system enclosing the entire nervous system, an imbalance in the tentorium can be the underlying tension causing SI joint problems or a trigeminal nerve restriction can, over time lead to sciatica.
2. Achieve extra neural mobility. Here we want to restore the slide and glide of the nerve and remove compression on the nerve imposed by the anatomical environment. Even mild compression can affect the health of the nervi nervorum and vasa nervorum supplying the nerve.
3. Normalize the intra neural environment. This can be achieved by Step 1 and Step 2 above or by releasing specific intra neural pressure congestion, keeping in mind that a nerve hates compression and loves elongation.



PHRENIC NERVE



OBTURATOR NERVE

4. It is important to avoid increasing nociception at all costs. Pain receptors called *nervi nervorum* (nerve to the nerve) and the *vaso nervorum* (vessels to the nerve) are located in the intra neural connective tissue environment. Barral has said of neural palpation, “You think you are light. You are still not light.”

Precise Manipulation

We must as manual therapists consider the relevance of the composition of a peripheral nerve. The connective tissue layers are the endoneurium, perineurium, epineurium and mesoneurium (blood supply). Anatomically, a nerve is like a part of the brain sitting in the leg or the arm. If you look at a transverse section of a nerve you will see the continuation of the pia mater in the endoneurium, the arachnoid layer in the perineurium, the dura mater in the epineurium. This is why precise manipulation of the central or

peripheral nervous system will have far-reaching results.

Mastering this work takes time, focus and dedication. As mentioned, the efficacy of your treatment depends on the accuracy of your assessment and the specificity of the application of gentle manual forces in three dimensions to promote the health of the nerve tissue and relief of restriction in the body. There can be an immediate response to treatment or a response that becomes apparent over several weeks as the body unravels a long-standing restriction.

I was introduced to Barral’s work in 1990 and cannot imagine my practice without these manual therapy tools. It is exciting, rewarding and challenging work. Neural, visceral and vascular manipulation will test your knowledge of anatomy and inspire you to learn more.

The Next Step?

I leave you with these questions: How might the restriction of the superficial

peroneal nerve be related to a sprained ankle that never fully resolves? Or equally, can an ankle sprain that heals in the position of injury, exert a pull on the entire neuromeninges?

If you don’t know the answers to these questions and feel your interest piqued, Neural Manipulation could be a rewarding next step on your massage therapy career. **M**

Judy Russell, RPT, is a registered physical therapist. She graduated from University of Toronto in 1978 and currently practices in Vancouver, British Columbia, Canada. For more information about the programs offered by the Barral Institute and the availability of courses in your area, visit barralinstitute.com.



Judy Russell, RPT, explains the training needed to offer Neural Manipulation, at massagemag.com/neuraltraining.



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