Peripheral Neuropathy: How Can Massage Therapy Help?
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• Disclaimer: The presenter is not a doctor and does not give medical advice. The content of this presentation is not intended to be a substitute for professional medical, diagnosis or treatment. The presenter does not claim to diagnose, treat, cure or prevent any condition or disease. The information offered in this presentation is for educational and informational purposes only. There is much research taking place now regarding neuropathy and complementary/integrative treatments such as massage. Always seek the advice of your physician before starting any form of therapy.
Point of View and Guidelines

- Experiential understanding --- You are your own expert
- What is your experience (today)?
  Curiosity and non-judgemental noticing
- Power of imagery
- Communication
The Fluid Body
“Touch is one of the principal elements necessary for the successful development and functional organization of the nervous system, and is as vital to our existence as food, water, and breath.”

--Dr. Ken Dychtwald, foreward to Job’s Body: A Handbook for Bodywork
What is peripheral neuropathy?

• A collection of disorders that occurs when nerves of the peripheral nervous system (outside of the brain and spinal cord) are damaged.

• Peripheral neuropathy is most commonly due to damage to nerve axons. Other times, the myelin sheath that protects the axon is injured.

• There are hundreds of peripheral neuropathies, arising from a number of causes.
What is peripheral neuropathy?

Underlying causes:

- Hereditary (Charcot Marie Tooth)
- Metabolic (diabetes, liver, kidney)
- Inflammatory (blood vessels or myelin)
- Toxic (chemical exposure, alcohol, chemotherapy)
- Vitamin Deficiency (B12, D, Thiamine)
- Nerve impingement (carpal tunnel syndrome, etc.)
- Related to tumor (paraneoplastic)
- Ideopathic
What is peripheral neuropathy?

Symptoms and effects depend upon which nerves have been damaged. These can be:

- Sensory nerve
- Motor nerve
- Autonomic nerve

(or a combination of the above)
We will discuss these in more detail later…
Types of Nerves

Sensory nerves tell us how things feel, such as texture, coldness or pain.

- You might feel: numbness, tingling, shooting pain, burning pain, or not being able to sense cold or heat.
Motor nerves stimulate muscle contraction and initiate movement.

- You might feel: weakness, have trouble walking or feeling off-balance, difficulty with buttons, twitching
Types of Nerves/Types of Sensation

Autonomic nerves control functions that our bodies don’t consciously regulate, such as breathing and heart rate. It can affect our internal organs (heart, bladder, intestines and blood vessels.)

• You might feel: constipation, dizziness, difficulty swallowing.
Understanding the Nervous System

Central Nervous System (CNS)
-- brain and spinal cord

Peripheral Nervous System (PNS)
-- Somatic Nervous System
  * Sensory nerves
  * Motor nerves

-- Autonomic Nervous System
  * Sympathetic
  * Parasympathetic
Neurons
Neurons are nerve cells. In the peripheral nervous system, they can be threadlike – their diameter can be microscopic, but their length measured in feet.
A sensory neuron

-- cell body is in the dorsal root ganglion, just outside the spinal cord

-- diameter ranges from .01mm to .05mm

BUT

axon can be 5-6 feet in length!

-- each neuron conveys information from one sensory receptor in the skin, by means of neurotransmitters

-- the information is transmitted to the central nervous system, to be interpreted in the brain
How many senses?

Individual touch receptors–
- light and deep pressure, cold, heat, vibration, texture, stretch…

Expanding sense vocabulary:
- What is your experience (today)?
  Curiosity and non-judgemental noticing
Nerves – bundles of neurones
Understanding the Nervous System

-- Autonomic Nervous System (controls functions that our bodies don’t consciously regulate, such as breathing and heart rate. It can affect our internal organs (heart, bladder, intestines and blood vessels.)

* Sympathetic (fight, flight or freeze)
* Parasympathetic (rest, digest and heal)
What is massage?

(15) Massage therapy--The manipulation of soft tissue by hand or through a mechanical or electrical apparatus for the purpose of body massage. The term includes effleurage (stroking), petrissage (kneading), tapotement (percussion), compression, vibration, friction, nerve strokes, and Swedish gymnastics. Massage therapy may include the use of oil, lubricant, salt glows, heat lamps, hot and cold packs, or tub, shower, jacuzzi, sauna, steam or cabinet baths. Equivalent terms for massage therapy are massage, therapeutic massage, massage technology, myotherapy, body massage, body rub, or any derivation of those terms. Massage therapy is a health care service when the massage is for therapeutic purposes. The terms "therapy" and "therapeutic" do not include diagnosis, the treatment of illness or disease, or any service or procedure for which a license to practice medicine, chiropractic, physical therapy, or podiatry is required by law. Massage therapy does not constitute the practice of chiropractic.

25 Texas Administrative Code, Chapter 140 Subchapter H

“Massage is any form of systematic touch”

-- Gayle MacDonald, author of Medicine Hands
Benefits of Massage

There are many benefits to massage. Some may include:

- Enhance relaxation
- Reduce stress
- Relieve muscle aches and pains
- Encourage greater ease of movement
- Increase overall body awareness and improve sensory mapping
- Improve sleep
- Keep skin moisturized and healthy
What type of touch is best for peripheral neuropathy?

• Listening hands, noticing, being present
• Less pressure helps – Walton pressures 1, 2 or 3
• Slowing down helps
• Direction of strokes (from periphery to center)
• Fuller mental picture helps – detail
• Care/self-care
**The Massage Therapy Pressure Scale**

**Pressure Level 1: Light Lotioning**

- **Tissues displaced**: Slight skin movement only
- **Therapist body use**: Little hand strength needed, just for contouring
- **Use of arms and hands**: Little upper extremity strength required; no leaning body mechanics required
- **Common uses**: Applying and spreading massage lubricant
- **Notes**: Maximum pressure for clients who are severely medically frail, with highly unstable tissues; slow speed is required to monitor this pressure level; tendency to go too lightly at this level can result in incomplete hand contact; firm contact is important to maintain, taking the shape of the client's tissues

**Pressure Level 2: Heavy Lotioning**

- **Tissues displaced**: Slight movement of superficial adipose tissue and muscle
- **Therapist body use**: Little hand strength needed, just for contouring
- **Use of arms and hands**: Little upper extremity strength required; no leaning body mechanics required
- **Common uses**: Distributing massage lubricant evenly; rubbing in excess; introducing the therapist's hands to the body at beginning of session
- **Notes**: Everyday use of this pressure: rubbing in lotion or sunscreen; tendency to go too lightly at this level can result in incomplete hand contact; firm contact is important to maintain, taking the shape of the client's tissues

**Pressure Level 3: Medium Pressure**

- **Tissues displaced**: Some movement of medium layers of adipose tissue, muscle, and blood vessels
- **Therapist body use**: Slight movement of adjacent joints may occur with this pressure; for example, neck may rotate a few degrees when pressure is applied in strokes along shoulder
- **Upper body and upper extremity strength or good body mechanics (transfer of therapist's body weight into tissues)** necessary to achieve this pressure
- **Notes**: Some hand strength is necessary for kneading at this pressure

**Common uses**: In healthy populations, used to warm up the tissues and prepare them for deeper pressures or more focused work

**Notes**: Maximum pressure for some clients who are experiencing illness, but are mobile and can participate in some activities of daily living

**Pressure Level 4: Strong Pressure**

- **Common uses**: Often used as an "everyday" pressure by practitioners of many modalities, especially in effleurage and petrissage

**Pressure Level 5: Deep Pressure**

- **Common uses**: Effleurage and petrissage at this pressure (and higher) have traditionally been believed and intended to increase circulation

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*From Walton, T. Medical Conditions and Massage Therapy: A Decision Tree Approach. Philadelphia: Lippincott, Williams & Wilkins.*
Massage for peripheral neuropathy – **cautions:**

- Due to loss of sensation, use caution with pressure and joint movement.
- Always inspect the skin carefully for injury before beginning the massage.
- It may be difficult to give accurate feedback.
- If you experience a sharp, stabbing pain, **stop** what you are doing and contact your doctor or therapist.
- Massage can reduce pain and increase well-being, but it can also aggravate certain conditions – such as: infection, edema, arthritis.
- Massage can “activate” the nerves and cause discomfort.
Find a qualified massage therapist

- Clinical knowledge and experience
- Compassion
- Safety consciousness
- Ability to provide a detailed, gentle massage
- A collaborative attitude
How Do I Find A Qualified Therapist?

Society for Oncology Massage
www.s4om.org

Oncology Massage Alliance
www.oncologymassagealliance.org
Guidelines for Massage at Home

self massage or massage by caregiver

- Make time for massage
- Choose a comfortable place
- Have pillows, blankets, towels, and lotion
- Position recipient on back, front, side or in chair
- Communicate – touch with permission, and give feedback
- Quality of touch – ease in gradually and gently, use soft hands, and take your hands away gently
- Take your time
Suggested massage guidelines for peripheral neuropathy (feet)
(Based on recommendations by MD Anderson Center for Integrative Medicine)

1. Begin each session by inspecting the feet. You are looking for discoloration such as bluish purple spots, redness, sores, cracks in the skin, fungus on the toenails or anything else that stands out as abnormal. Experiment with gentle, yet firm pressure while you are inspecting the feet.

2. Next begin some light compression, again using the whole hand. Spend several minutes on each foot lightly compressing the plantar and dorsal surfaces and all tissue from the toes to the knee. Take your time to notice sensation. This is the “hand sandwich.”

3. Now spend several minutes on each foot with gentle, slow stroking, using your whole hand and not just the fingertips. Include plantar and dorsal surfaces and all tissue from the toes to the knee. Work from distal (furthest from center) to proximal (closer to body)

4. Next you will focus on digital kneading, to the client's tolerance, using gentle pressure on each toe from the distal tip to the base of the toe. Work on all toe surfaces, front, back and sides. Spend several minutes on each foot, working from the toes towards the ankle. Knead ball of the foot, the arch and the heel, and continue firm kneading up to the knee.

5. Begin light stretching, to the patient's tolerance, by performing a full range of motion on every toe joint, at the base of the toes, and at the ankles. Spend several minutes on each foot.

6. Follow with whole hand stroking from the toes to the knee of all anterior and posterior surfaces.

7. Finish with full hand holding of the feet, molding your hands to the contour of the foot. Take some time to notice sensation, and to imagine a clear pathway from the periphery to the somatosensory cortex in the brain, where sensory mapping takes place.
Resources:

Neuropathy Alliance of Texas: www.neuropathyalliancetx.org
The Foundation for Peripheral Neuropathy: www.foundationforpn.org

BodyStories: A Guide to Experiential Anatomy, by Andrea Olsen with Caryn McHose

Evidence-Based Medicine Consult (images) http://www.ebmconsult.com/

Job’s Body: A Handbook for Bodywork, by Deane Juhan

Medical Conditions and Massage Therapy: A Decision Tree Approach, by Tracy Walton.

Sensing, Feeling and Action: The Experiential Anatomy of Body-Mind Centering®, by Bonnie Bainbridge Cohen

Touch, Caring, and Cancer, DVD developed by Tracy Walton and William Collinge, PhD

Touch: The Science of Hand, Heart, and Mind, by David J. Linden

Understanding the Secrets of Human Perception [sound recording], Peter M. Vishton
The Great Courses – Austin Public Library (CD 152 VI)
Thank you!

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