

# Palpation Fundamentals with Doug Alexander, B.Sc., RMT.

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## Introduction

*Palpation, the ability to “see” with our fingers, is a key skill in massage therapy.*

**While reading this article go online to watch the video clips!!** Go online to <http://www.MassageTherapyPractice.com> and click on “Palpation” on the menu bar at the left side of the website. (see Image 1 and 2) Reproduce the exercises in the videos with a partner. Relax and take your time. If you are tense your fingers will be less sensitive, and if rushed you will miss the opportunity to feel things you may never have felt before.

A sense of playful experimentation is vital in palpation. Remember to stay positive! Sometimes it is hard to feel a structure in your partner's body because that particular muscle is not well developed in them, or they may have a little extra adipose tissue that is acting as a buffer between your palpating fingers and the structure you are trying to palpate.

*When you are done the tutorial, take the quiz to test your comprehension.* You can take the quiz several times if you need to. When you score 75% or higher, print the quiz result and the **continuing education certificate** to document your learning!

Study any of the continuing education articles on the [Massage Therapy Practice.com](http://www.MassageTherapyPractice.com) web site for free! If you wish to document your learning with a quiz and certificate, then subscribe for a low annual fee for all the content on the web site.



Image 1: There are 9 video clips online demonstrating the palpations described in this article.

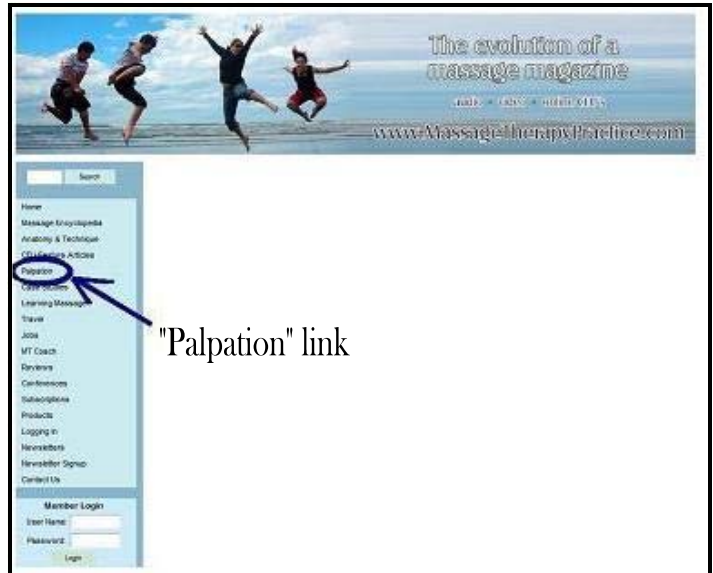


Image 2: Go online to [MassageTherapyPractice.com](http://www.MassageTherapyPractice.com) and click on the “Palpation” link to access the videos, online quiz and certificate.

### Fiber Direction (see Image 3)

One of the key ways to know which muscle you are palpating is by feeling the direction of the muscle fibers. The muscle will be most easily felt when your fingers are strumming at right angles to the direction of the muscle fibers. A good place to practice feeling different fiber directions is between the vertebral border of the scapulae and the vertebrae. There are three obvious layers of muscles: the trapezius, rhomboids and the erector spinae (superficial to profundus, respectively).

Beginning superficially, place your palpating fingers such that they will be at right angles to the middle trapezius. Sink deeper and change your palpation to the rhomboid major and minor fibers. Then sinking a little deeper to these muscle fibers is where you may palpate the erector spinae.

Notice that it isn't just about the depth of the palpation, it is adjusting the palpatory direction of your fingers that brings the layers of back muscles into your awareness in a new way!

In the online version of this article there are videos of interscapular palpation as well as applying the same principles to pick out the layers of the abdominal wall.

### Bony Landmarks (see Image 4)

Another way to make sure of the structures you are palpating is to orient yourself with respect to bony landmarks. When palpating the insertions of the rotator cuff, starting at the inter-tubercular groove, move lateral around the greater tubercle and then posterior to identify the insertion of the rotator cuff tendons. This bony identification anchors your palpation. Then, it is just a matter of noticing the gaps or thin spots between individual tendons.

Even the most "mysterious" places, such as the medial tibia yield useful results when approached this way. By tracing our fingers along an illustration from Gray's Anatomy, we can learn to identify all the different sources of tissue fullness along the medial aspect of the tibia.

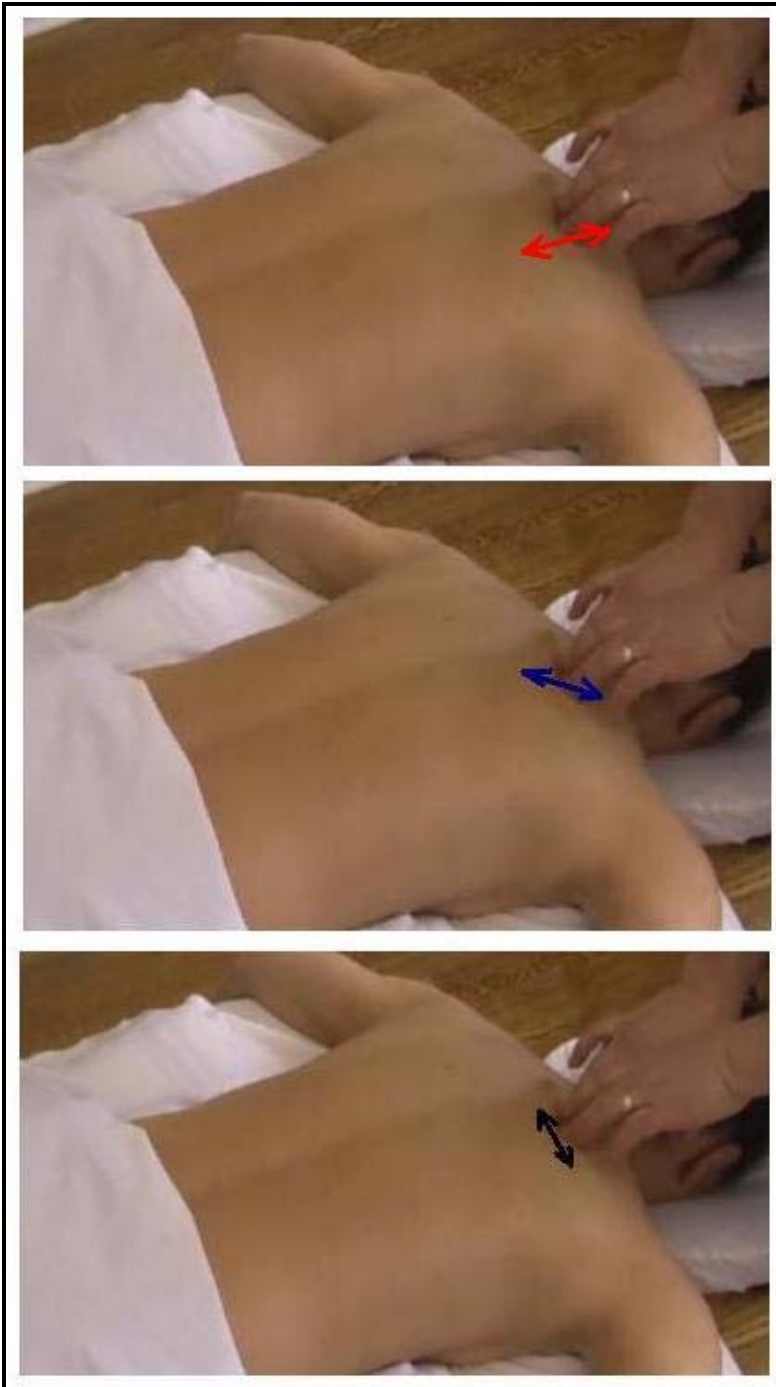


Image 3: Changing your direction of palpation helps identify different muscles. **Red arrow—Middle Trapezius Palpation;** **Blue arrow—Rhomboids Palpation;** **Black arrow—Erector Spinae Palpation**

### Palpating Ligaments (see Image 5)

Ligaments are important structures to identify and assess as they may be injured from recent or old (sometimes decades old) injuries. A key to palpating ligaments accurately is to orient yourself relative to their bony attachment point. This works particularly well with the medial collateral ligament of the knee. Just flow along the joint space and if you know what the sequence of tissues you ought to encounter are, then you can be confident about what structure you are on.

The ankle is a vulnerable site for inversion sprains as the joint is inherently less stable in plantar flexion. In this

position, the integrity of the lateral aspect of the joint is dependant on the talofibular ligament. If you explore an anatomical image of the lateral ankle you will see 3 main ligaments. A little inversion might be required to spread the bony attachment points of the ligament and place it under enough tension so that it is more easily differentiated from neighboring tissues.

The anterior talofibular ligament often needs some soft tissue manipulation to release adhesions within it and from the underlying bones.

The flexor retinaculum is a good example of ligamentous/fascial tissue that one can identify by bony attach-

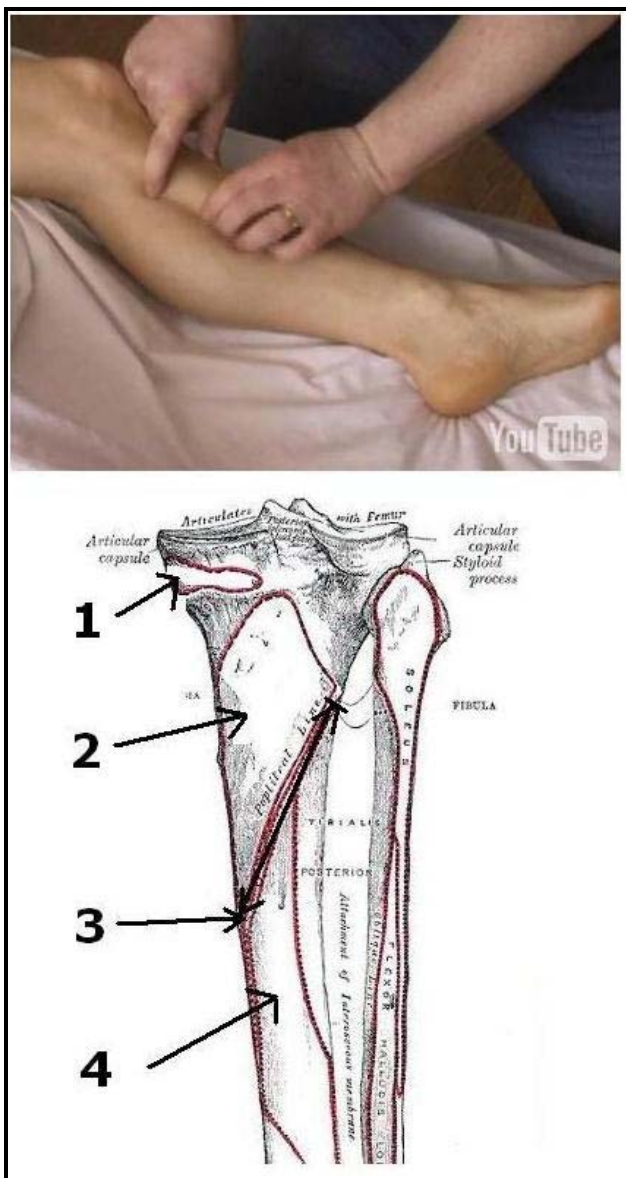


Image 4: Classic anatomical images can guide us in our “in the flesh” palpation!

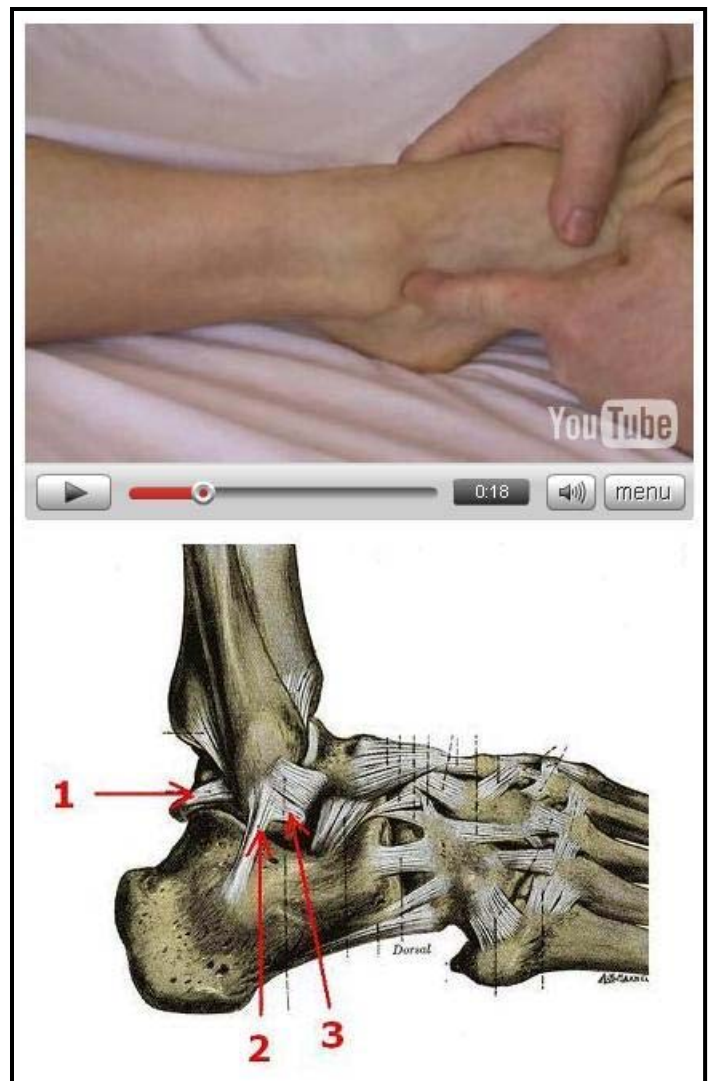


Image 5: Ligaments are palpated at right angles to their fiber direction. You may have to position the bones so the ligament is under some tension to make it easier to feel.

ments, anatomical landmarks (the distal skin crease) or by differential resistance when flowing along the plane of the deep fascia. The flexor retinaculum is usually a key structure that needs to be released in carpal tunnel syndrome.

### **Nerve Palpation**

Nerves usually travel with blood vessels. They are usually soft, tubular structures with a little bit of turgor (fluid tension) inside them. If you feel a softer tubular structure that pulses it is the artery adjacent to the nerve. In many locations, you can learn the fairly constant relationship between where the nerve is usually located relative to the artery. Nerves are sometimes confused with tendons, but if you contract the muscle, the nerve does not tighten like the tendon does. Notice, however, that the nerve may shift as the muscle contracts, or the muscle may bring the nerve closer to the surface as it contracts. One can also gently provoke a nerve by rolling it, compressing it, or tapping it to elicit a tingly feeling that indicates that you are right on the nerve.

Nerves can be swollen, fibrosed internally and/or externally to adjacent tissues. Manual treatment of nerves is a new and growing niche in the massage profession.

### **Practice!**

It is one thing to know academically where structures are and another to accurately palpate them with confidence. Practice each of the palpations above with a partner until both of you feel comfortable with them. It is just as important to feel someone identifying with them in your body. This kinesthetic sense will help shape your touch when you are palpating other people.

Once you feel comfortable with these palpations, take the skills on the road and practice palpating every structure in your partner's body (with a good anatomy book close at hand!).□

### **Author Biography**

*Doug Alexander has been obsessed with palpation for over 20 years and loves sharing his enthusiasm on his web site, [www.MassageTherapyPractice.com](http://www.MassageTherapyPractice.com). He can also be reached by e-mail at [alexander2000@sympatico.ca](mailto:alexander2000@sympatico.ca)*



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