

## Basic Percussion Technique Notes



Adapted and Edited by  
Stephen M. Davidson, D.O.  
C-SPOMM

Basic Percussion Technique Manual  
Level One

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"THIS BOOK IS NOT A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE."

*This book contains general information only. It does not contain specific medical advice. It is not a substitute for a patient consulting with his or her own physician regarding particular symptoms and appropriate treatment.*

Dedicated to Robert Fulford, D.O.,  
an osteopathic pioneer,  
charting new directions  
for our better health.

In 1992, KCOM Student Doctor Ken Lossing sent me a copy of a manuscript outlining Dr. Fulford's percussion hammer techniques. He thought, that with some text reworking and additional diagrams, the manuscript would better help students learning the percussion hammer technique. I agreed but little did I realize what a job it would be getting the proper medical artwork for this project.

Now, five years later (1997) and about two hundred hours into the project, I have completed the work. The illustrations wouldn't have been too clear had I drawn the pictures myself. My skills with pen and ink are best left to signing letters. Thankfully, medical illustrator Ray Litman came to the rescue with some excellent line drawings. All the line drawings in this project were taken from his medical artwork package and are reprinted with his permission.

I also give special thanks to that unknown author and illustrator who created the original manuscript from which much of this manuscript was derived. We couldn't find him or her so we will have to thank him or her in this preface.

Ken and I hope you find the *Basic Percussor Technique Manual* helpful. Please understand that this manual cannot possibly supplant the extensive information presented in one of Dr. Fulford's classes. Rather, we intend you to use the manual for review, reference, and amplification as Dr. Fulford's legacy evolves.

Because of the expense and time necessary to prepare this work, we ask you to support this project by purchasing the manuals directly from *PRACTICAL PUBLICATIONS or their distributors.*

Your purchase helps us finance our projects for this osteopathic profession we care so much about. We ask that you do not copy this booklet for your friends and colleagues.

**Stephen M. Davidson, D.O., C-SPOMM**

*Editor*

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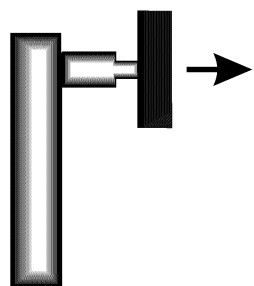
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## SYMBOLS

Throughout the *Basic Percussion Hammer Technique Manual*, you will find hand positions and percussion hammer positions indicated. Please follow all directions, warnings and important notices carefully. Thank you.



Placement and direction of percussion hammer



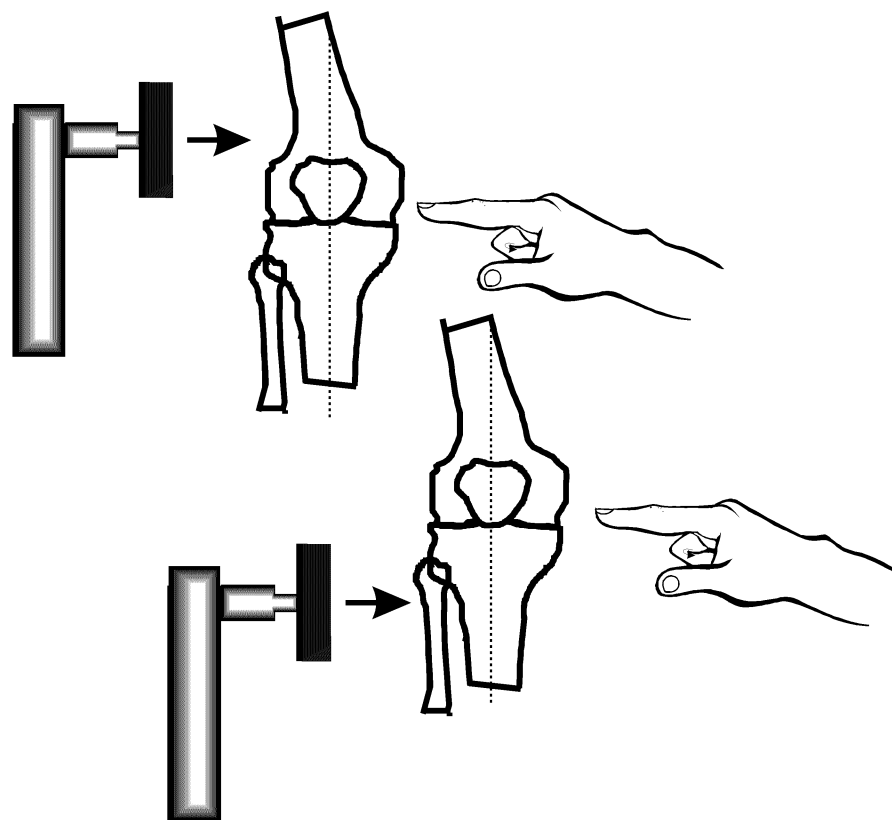
Placement of monitoring hand

## KNEE

In the normally functioning knee, an imaginary vertical line drawn downward from the midline of the patella should bisect the tibial tuberosity. So, if the tibial tuberosity lies to one side or the other of this line bisecting the patella, the knee is dysfunctional.

To treat, first, percuss the knee at the end of the ilio-tibial band where the ilio-tibial band attaches to the distal end of the femur. Your discriminating fingers will palpate a quarter-sized weakness or looseness in the iliotibial band's tension. Monitor the percussion activity on the opposite (medial) side of the knee (upper diagram).

Next, percuss the head of the fibula. Again, monitor the percussion activity on the opposite (medial) side of the knee (lower diagram).



## ANKLE

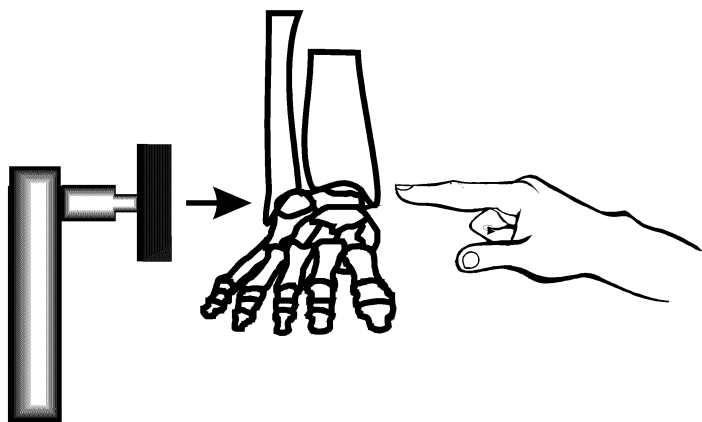
In the normal ankle, the medial and lateral malleolus lie in the same plane. With the patient supine, the malleolus more posterior (closer) to the table identifies the dysfunctional ankle.

Evaluate the ankle by grasping the medial malleolus with one hand and the lateral malleolus with the other, using the following hand hold: Place your thumb on the anterior surface of the malleolus and your index and third finger around it posteriorly.

After deciding which ankle is the dysfunctional one, treat only that ankle's lateral malleolus.

Place the percussion hammer at the superior surface of the lateral malleolus (i.e. the superior surface of the distal end of the fibula). With your free hand on the medial side of the ankle, monitor the percussion.

**EXCEPTION:** Although you will generally treat only the lateral malleolus, you may treat both lateral and medial malleolus in severe ankle problems.



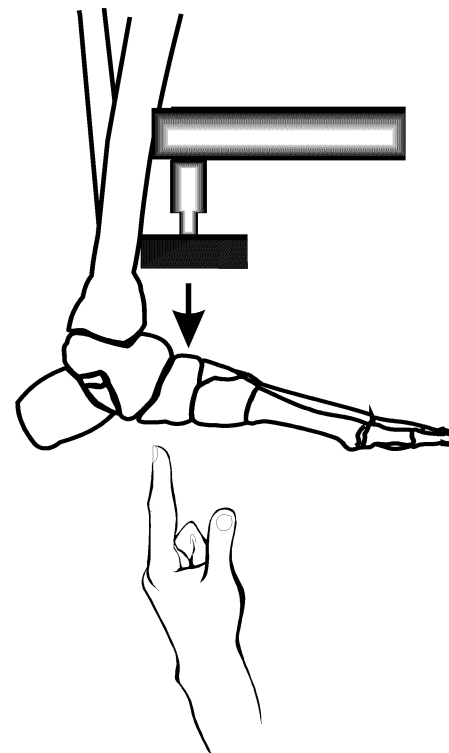
## FOOT

Cuboid dysfunction causes most foot problems.

Treat the cuboid by placing the percussion hammer directly against the cuboid bone itself. Monitor the percussion with your free hand placed directly opposite the cuboid on the plantar fascia.

Treat the navicular by placing the percussion hammer directly against the navicular bone itself. Monitor the percussion with your free hand placed directly opposite the navicular on the plantar fascia.

**Note:** The illustration demonstrates navicular treatment.

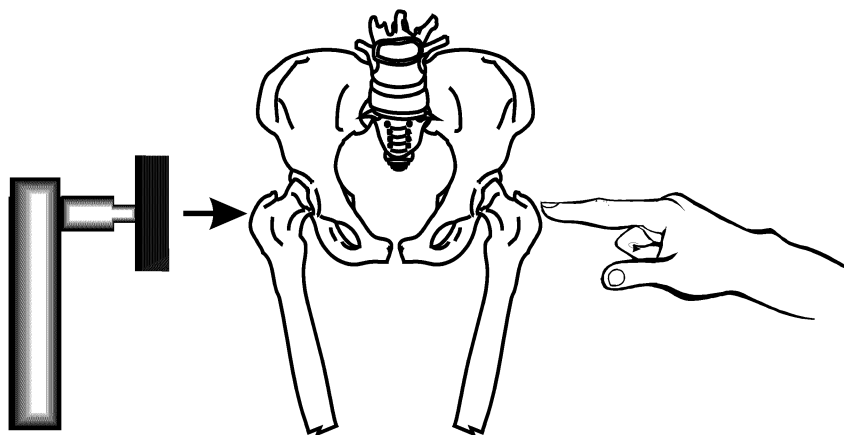


## HIP

Evaluate the hip with your patient supine on the treatment table. Grasp the patient's feet and ankles. By slowly externally and internally rotating the lower extremities at the ankles, test for subtle restrictions (subtle motion).

Despite which hip you find restricted, you will apply the percussion hammer to the right greater trochanter. Place your percussion hammer head directly up against and perpendicular the right greater trochanter during treatment.

Reach across the pelvis with the monitoring hand, resting the monitoring hand on the left greater trochanter.

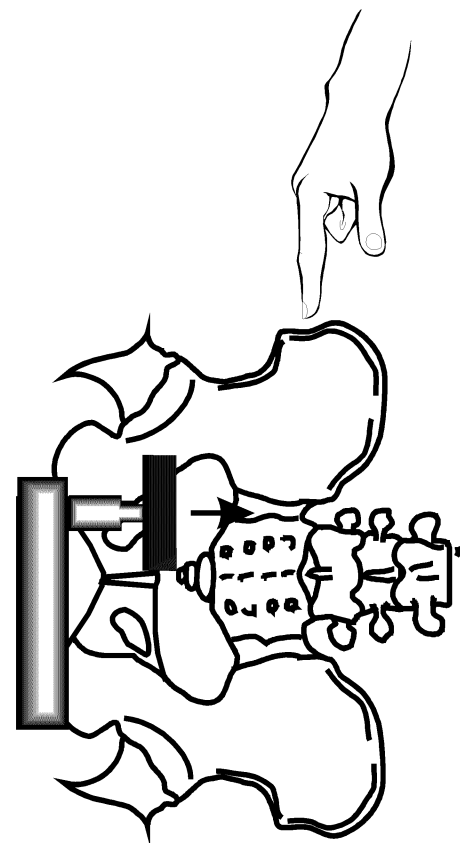


## SACROILIAC

Special note: When treating below the diaphragm, place your monitoring hand on the hip. When treating above the diaphragm, place your monitoring hand on the shoulder.

First, diagnose the sacroiliac dysfunction using your usual methods. Next, place the patient in the lateral recumbent position. With the monitoring hand resting on the patient's hip, place the percussion hammer over the restricted sacroiliac area.

**Note:** The diagram shows hammer position. When treating, the percussion pad will be perpendicular to the joint.





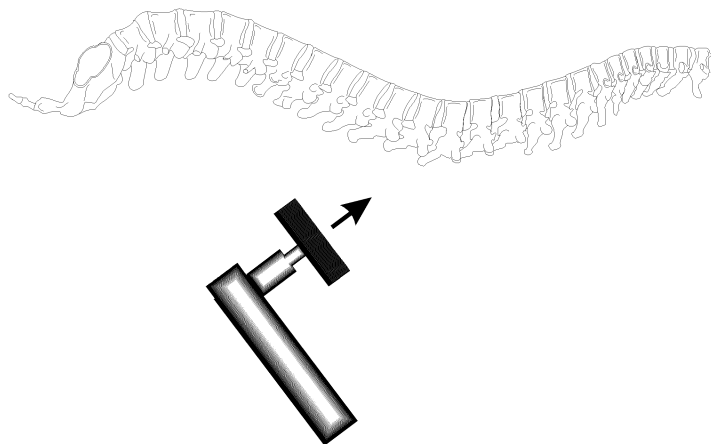
## SPINE

Special note: When treating below the diaphragm, place your monitoring hand on the hip. When treating above the diaphragm, place your monitoring hand on the shoulder.

First, diagnose spinal somatic dysfunction as you usually do. Next, place the patient in the lateral recumbent position. Then, find and percuss each spinal area of somatic dysfunction by placing your percussion hammer perpendicular to the spinous process.

Continue percussing until you feel a release. Continue up the spine from lumbar through thoracic areas until you reach C7.

Different vertebrae relate to each other osteopathically. That is, if you cannot correct the one you are working on, you can release it by releasing its companion vertebra. Some examples of companion vertebrae are C1 and L5, C2 and L4, C3 and L3. So, if you cannot release L5, release C1 first. Sometimes you will then find L5 will release. Unfortunately, T1-T8 have no "companion vertebrae."

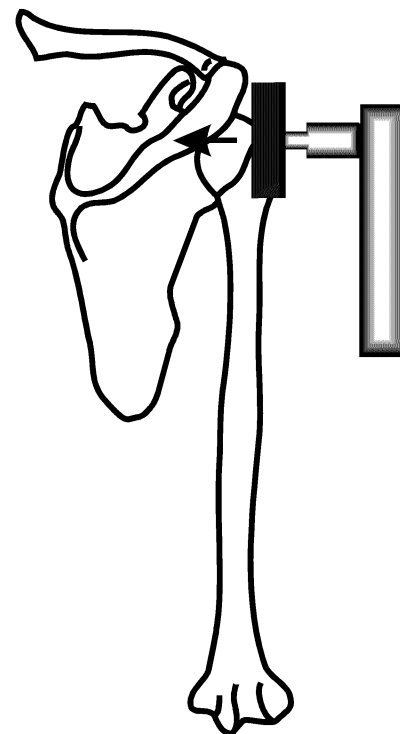


## SCAPULA

Scapula restrictions restrict the motions in the upper four or five ribs. So, to free up respiration in this area, test and release the scapula. When testing the left shoulder, rest your right hand on the patient's right shoulder and vice versa. Evaluate the shoulder for restrictions.

To treat the shoulder, place the percussion hammer on the midpoint of the scapula spine. When you have finished, check your work by raising the arm at the elbow. Be sure to keep the shoulder and arm in the horizontal plane.

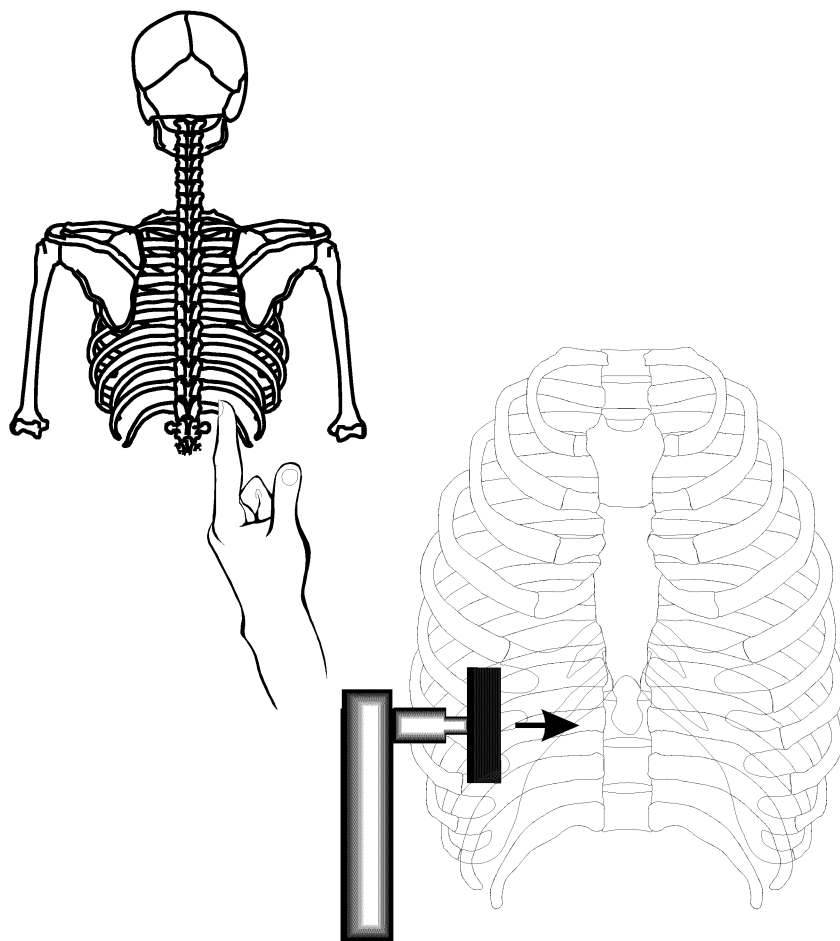
Normal abduction is 180 degrees with the arm swinging freely in the coronal plane to the ipsilateral ear.



## DIAPHRAGM

The diaphragm strain shows itself as a small concavity along the right rib cage lower margin. You will discover this concavity with light palpation.

Stand to the right of your patient lying supine on the table. Place the percussion hammer into the rib margin concavity. Reach across the patient's body with your left hand and monitor the treatment.

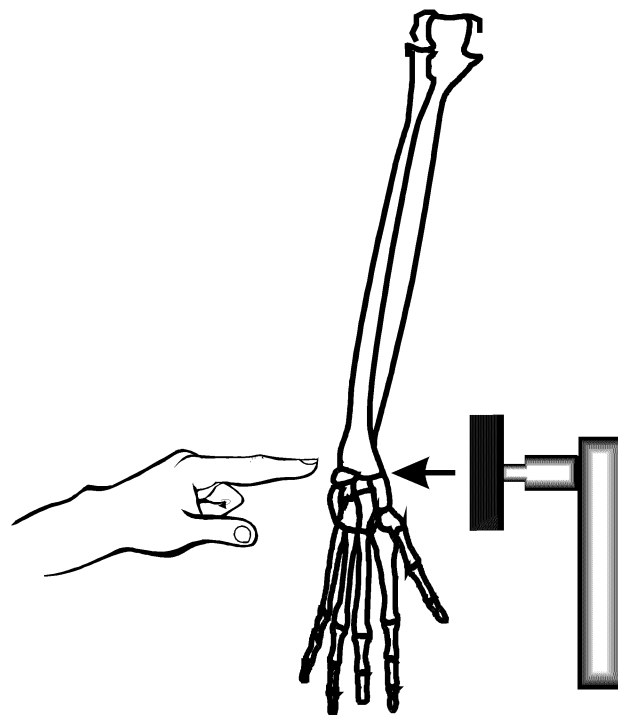


## WRIST

To diagnose somatic dysfunction in the wrist, while holding the hand, extend the arm and slowly pronate and supinate the forearm. Evaluate this ease or lack of ease in this "subtle motion."

Check for restrictions in both the wrist and forearm by holding the wrist with one hand and blocking ulna and radial motion with the other.

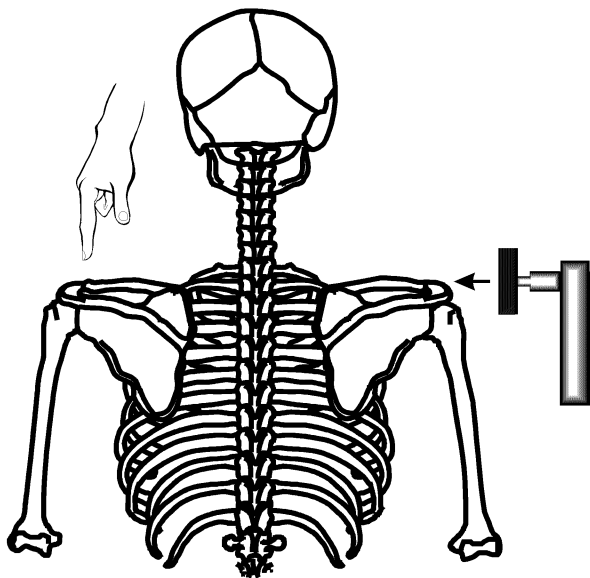
Treat the wrist by placing the percussion hammer on the distal radius and the monitoring hand on the opposite side of the wrist.



### ACROMIO-CLAVICULAR JOINT

First, diagnose somatic dysfunction at the acromio-clavicular joint. Then, position the percussion hammer perpendicular to that disturbed joint. Place the monitoring hand over the opposite acromio-clavicular joint.

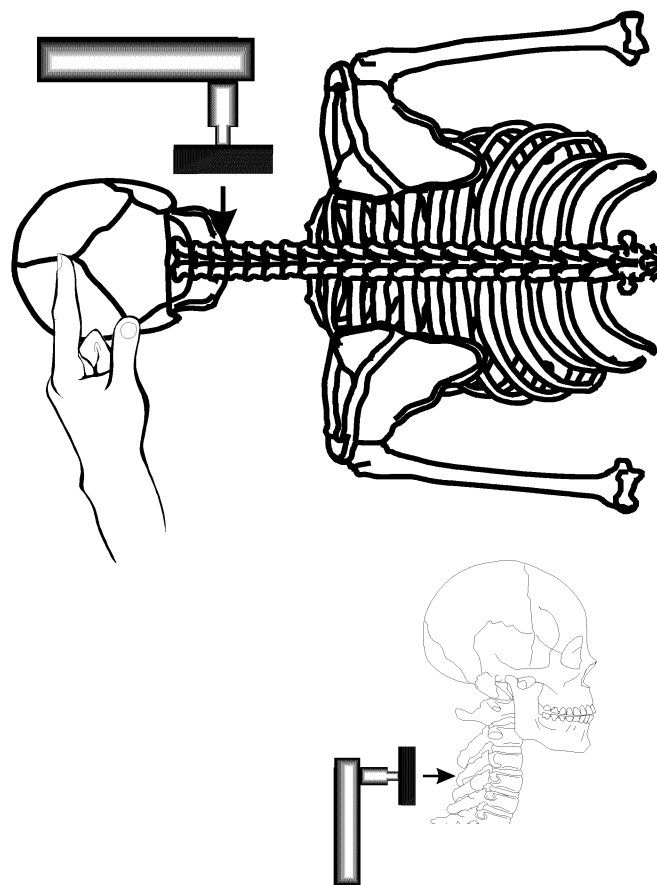
For best results, please observe these operator positions. When treating left shoulder somatic dysfunction, stand in front of the patient so that you look directly at the patient. When treating the right shoulder somatic dysfunction, you sit or stand behind the patient. We've shown the right shoulder somatic dysfunction below. The hammer shows position but to treat hold the pad perpendicular to the joint.



### THIRD CERVICAL VERTEBRA

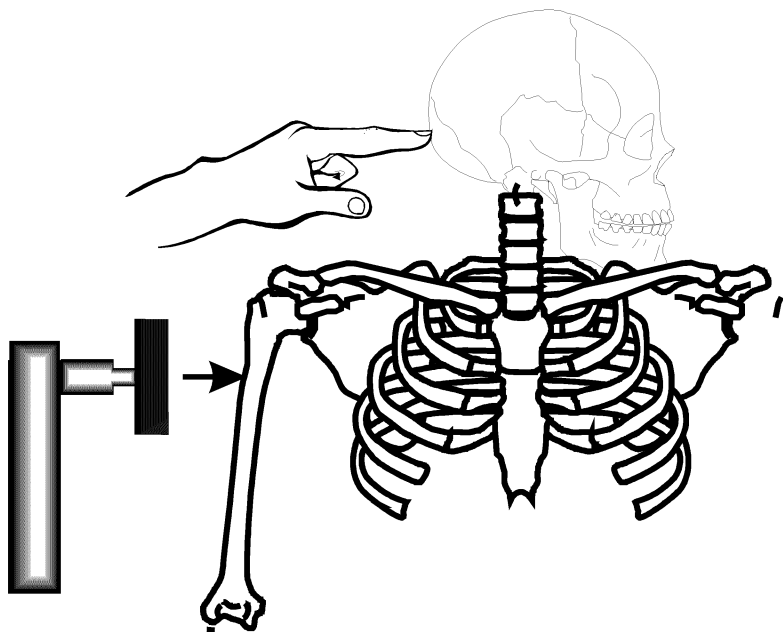
Diagnose somatic dysfunction at C3 as you usually do. Consider dural attachments at C3 and the insertions of the muscles of the suboccipital triangle.

Place the patient in the lateral recumbent position. Percuss C3, keeping the percussion hammer piston perpendicular to C3 (Please see lower figure.). Place the monitoring hand on the vertex (Please see upper figure.)



## CRANIAL BASE AND OCCIPUT

Evaluate occipital and cranial base strains using your usual methods. While monitoring the progress with the other hand on the occiput, percuss the right deltoid muscle insertion. You may cup the patient's occiput in the palm of your hand while the patient lies supine, looking anteriorly. In the diagram below, the head is turned left to illustrate monitoring hand location.

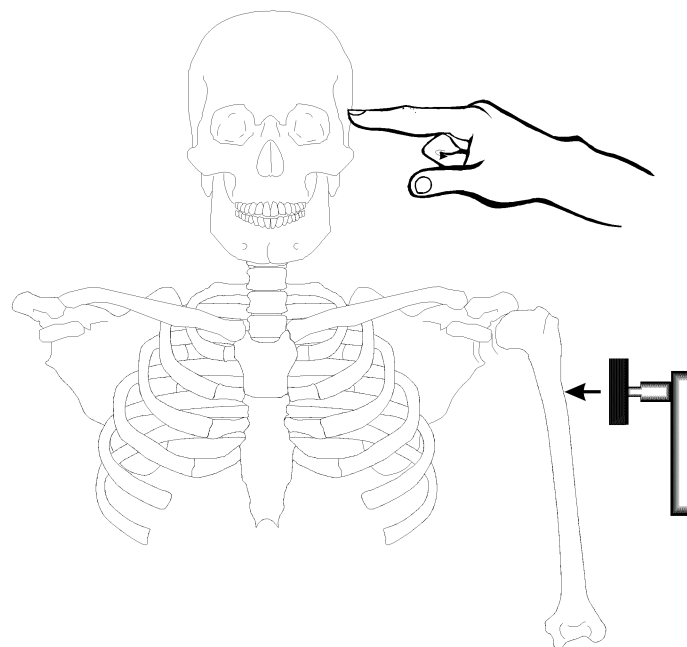


## SPHENOID AND FRONTAL BONES

Diagnose sphenoid and frontal bone somatic dysfunction. The treatment point for the sphenoid and frontal bones is the left deltoid muscle insertion.

You monitor the treatment progress with your hand on the greater wings of the sphenoid for sphenoid somatic dysfunction or on the frontal bones for frontal bone somatic dysfunction. The diagram below illustrates the location of the left sphenoid greater wing. The right greater wing is on the other side and you know where the frontal bones are.

**WARNING:** If during the procedure, the patient experiences pain, discontinue the treatment.

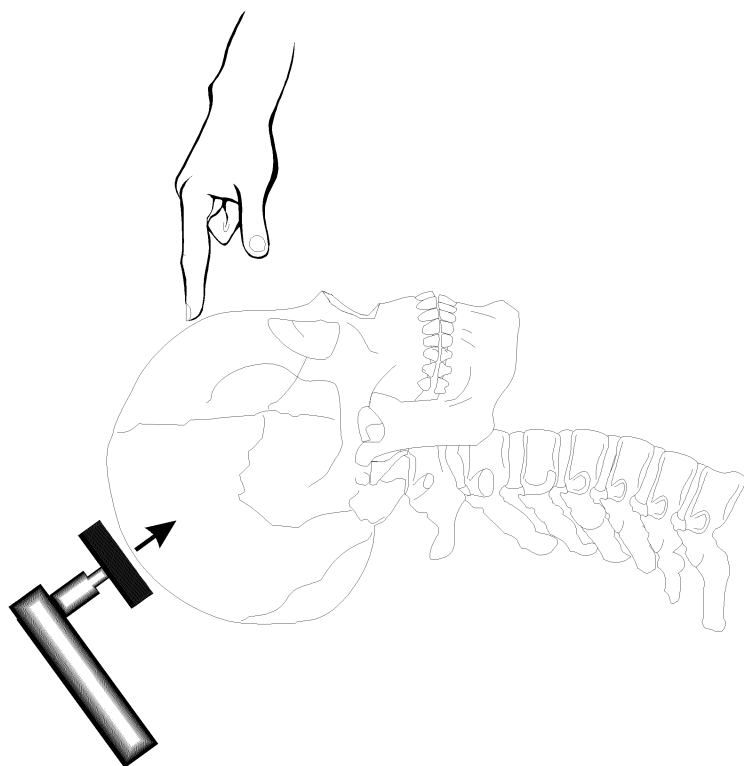


## PARIETAL BONE

With your patient supine on the table, diagnose parietal bone somatic dysfunction by evaluating ossification center location.

You will percuss the parietal bone whose ossification center lies closest to the table.

Monitor the progress with your first three fingers placed over the metopic suture.

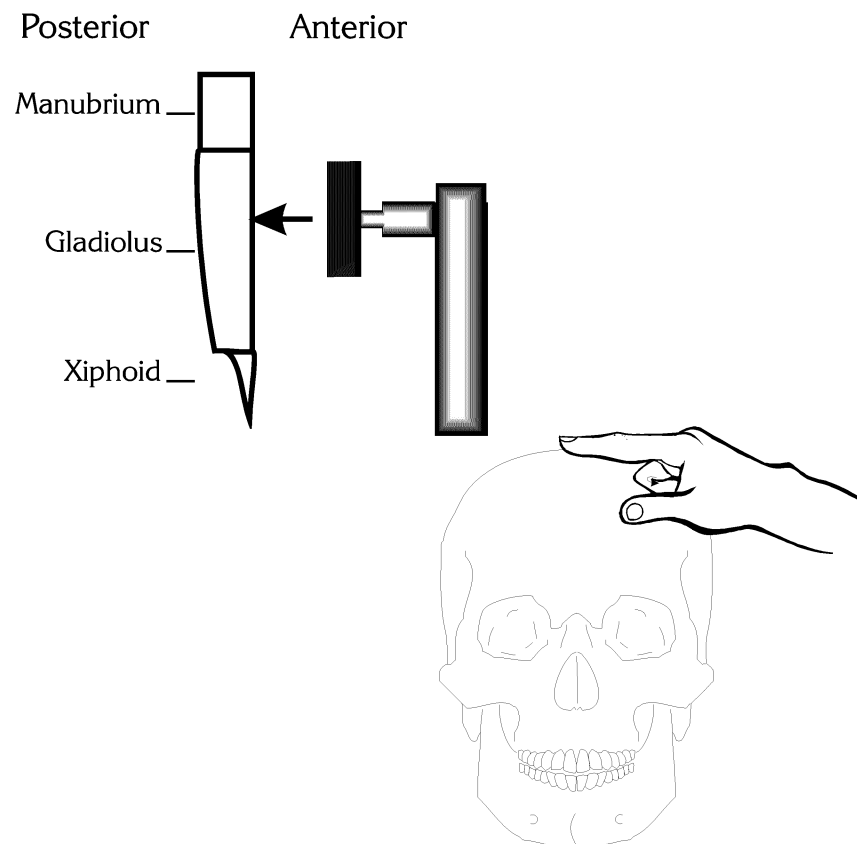


## STERNAL ANGLE

**WARNING:** This part of the treatment is extremely sensitive. Treat the sternal angle last.

First, find a hard spot on the sternum between xiphoid and sternal angle. To find this "hard spot," begin at the xiphoid process and work cephalad.

Next, percuss with the percussion hammer piston angled perpendicularly to the hard spot. Monitor the treatment's progress with your other hand at the vertex.



## CARE OF THE PERCUSSION HAMMER

With a little care, your percussion hammer will give you years of faithful service. Follow the schedule below and you will have a hammer that runs and runs.

### *Motor Oiling*

On some models (older models generally), add a few drops of three-in-one oil into a hole in base of the percussion hammer every six weeks. Some newer models (Foredom Percussor Model 973) are self-lubricating and will not have this hole present.

### *Motor Cleaning and Adjustment*

Clean and adjust the motor once yearly. If you cannot do it yourself, find a "small motor" repair company that will.

### *Shaft and Handle Greasing*

Grease the shaft occasionally using the grease from Foredom or a similar fine grease used in electric saw motors. If you use the hammer extensively, you may want to check and grease the shaft weekly.

Grease the hand piece by first removing the three screws in the percussion hammer hand piece. Use a packing grease like the kind used to pack the front bearings in automobiles

Properly cared for, your percussion hammer will give you years of trouble-free service and fine clinical results.

**PRACTICAL PUBLICATIONS**, official United States dealer for the manufacturer (Foredom Electric Company) offers professional discounts. Please call us in Arizona at (602) 957-3525 or toll-free in the USA at (800) 359-7772. Please visit our website at [www.Healthabounds2.com](http://www.Healthabounds2.com), Thank you.

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