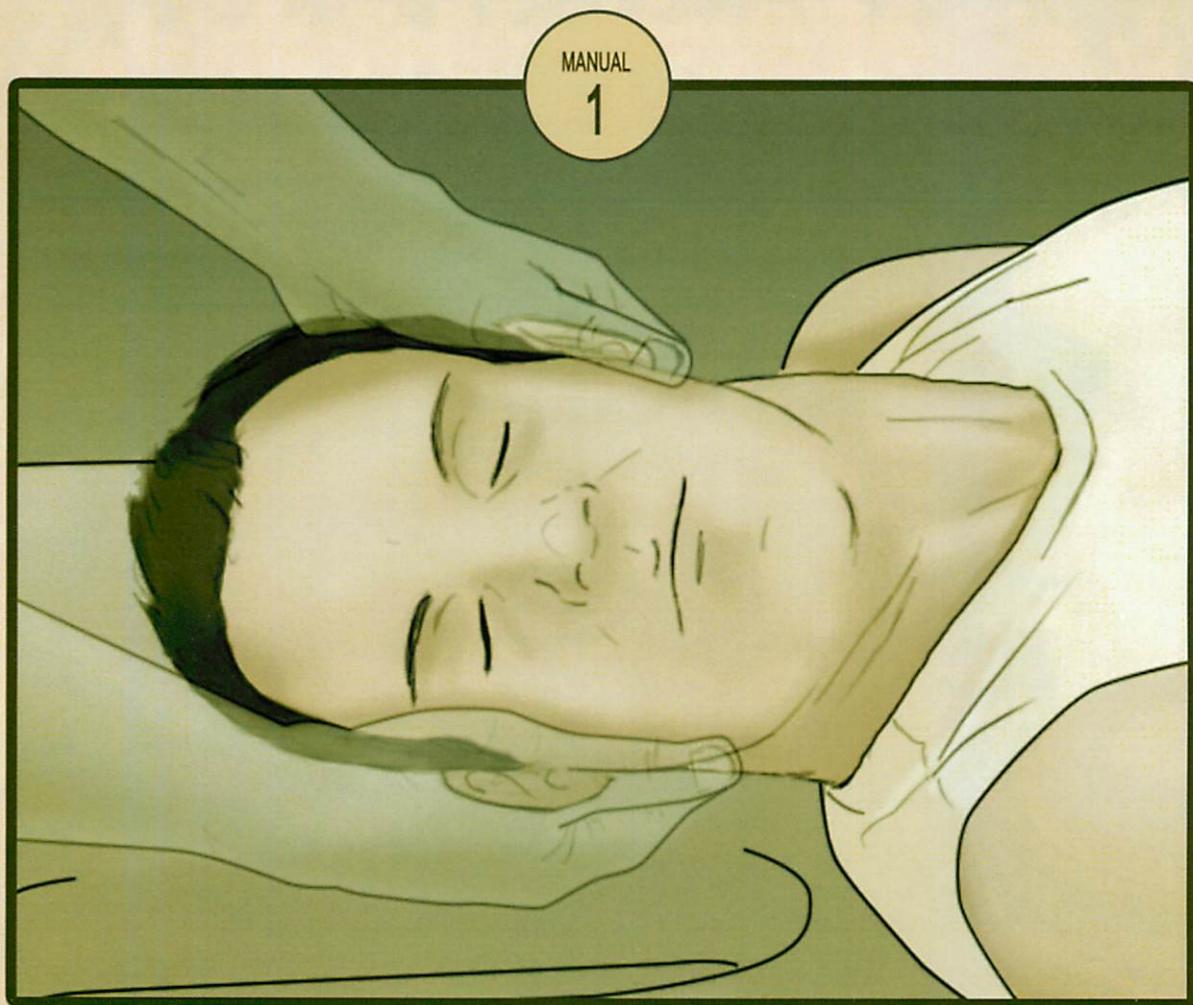
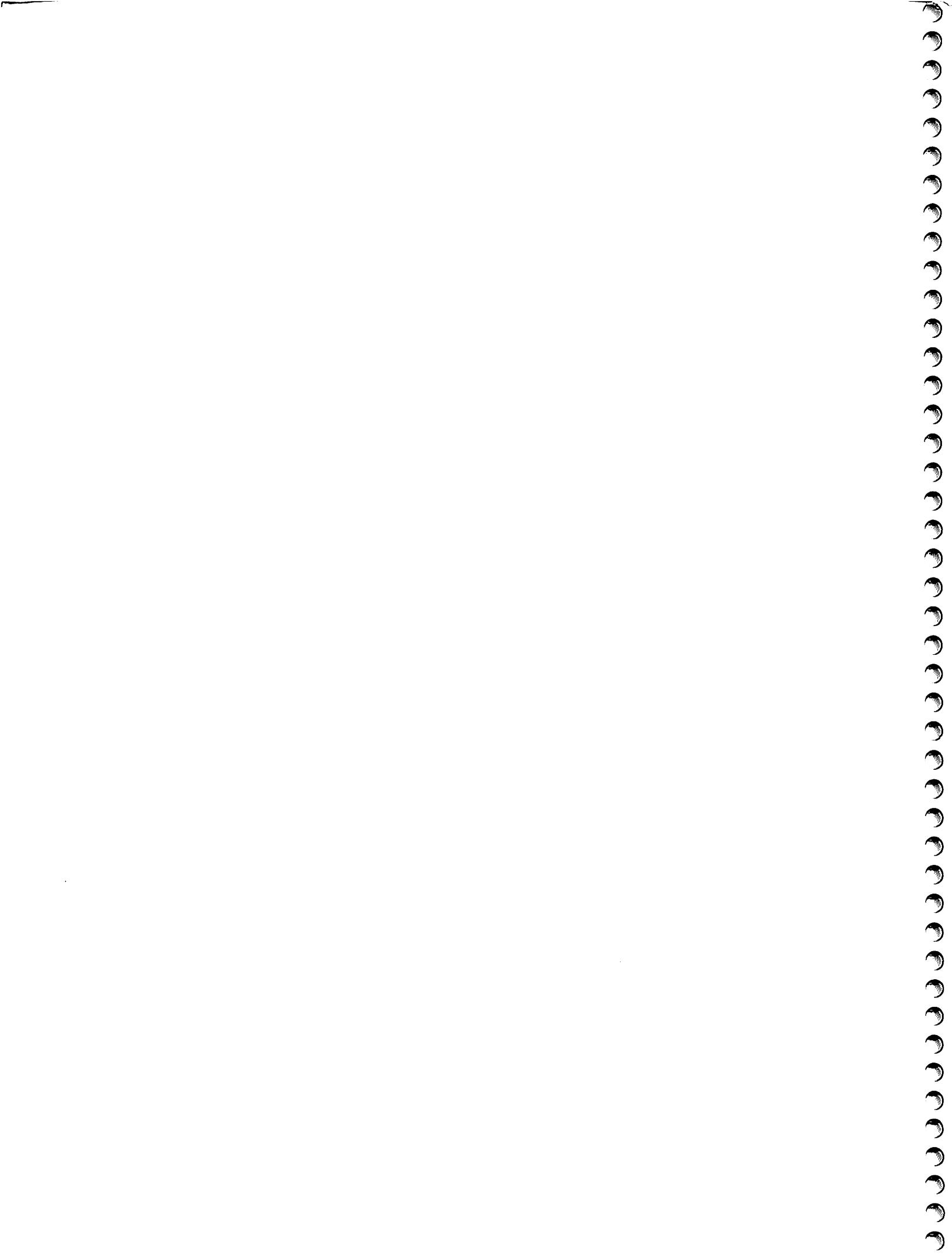


THE ĀMIT MANUALS

Craig F. Buhler, D.C.
Spencer G. Williams, D.C.



THE WORLD'S MOST DEFINITIVE GUIDE TO
MUSCLES OF THE NECK



A.M.I.T.™

Advanced Muscle Integration Technique

“For Targeted Assessment, Therapy and Performance”.

Mission Statement

“Our mission is to accelerate **healing** to maximize function and human performance, by **integrating** the structural, chemical and electromagnetic systems of the body. We **predict** and prevent injuries by defining vulnerabilities using the body’s **Innate Intelligence guided systems approach** to assessment, diagnosis and therapy.”

Dr. Craig Buhler



Dr. Buhler has served as the team chiropractor for the Utah Jazz Basketball team for the past 30 years. In addition to being on the medical team of the Jazz he had a successful private practice in Salt Lake City for 20 years. In June of 2002 he established his practice, AMIT Clinic, in Kaysville, Utah.

In 1978 Dr. Buhler received his Doctor of Chiropractic degree from Western States Chiropractic College in Portland, Oregon. He filled a Post Doctoral Fellowship at the University of Utah Medical School in the area of motor physiology. He studied with the late Dr. Alan Beardall and was involved in the development of what became known as Clinical Kinesiology. Dr. Buhler has expanded on the muscle work developed by Alan by looking at the interrelationships between muscle function, range of motion restrictions and the causes of pain.

Dr. Buhler has lectured nationally on muscle testing and athletic injuries. He has treated world class professional and Olympic athletes as well as the general public who testify of his special ability to assist them in improved performance and wellness. On a national broadcast, John Stockton thanked Dr. Buhler for his services labeling him "a gifted healer".

Dr. Buhler enjoys spending time with his 5 daughters, riding horses, and the opportunity to help children and adults become aware of and enjoy good health.

Dr. Spencer Williams



A student of Western States Chiropractic College, Spencer Williams was a freshman when he first met Dr. Alan Beardall, known to be one of the most influential and inspirational Chiropractors of his time. Following Dr. Beardall's model of the Human Biocomputer, Dr. Spencer Williams has now spent over 30 years perfecting this method, assisting in developing *the Clinical Kinesiology Procedural Manuals*, and identified the specific muscle test and reflexes for 30 intrinsic muscles of the cervical, thoracic and lumbar spine. This information has led to the publishing of an instruction manual by *Human Biodynamics* called, "Muscles of the Neck". He is the author of two instructional video tapes on how to test the "Muscles of the Neck" and "Muscles of the Lower Back". Dr. Williams has taught numerous seminars and workshops on specific muscles testing and advanced Biocomputer procedures.

Craig Buhler and Spencer Williams first met as freshman at the new student orientation at Western States Chiropractic College in 1974, and have been close friends since. "It is an honor to be associated with my good friend and colleague, Dr. Craig Buhler."

Dr. Williams and his wife Valorie live in Twin Falls, Idaho and are parents to five sons who are known as "The Standards", a national award-winning harmony group who have appeared on WB network, PAX, and The Travel Channel. Spencer is also a licensed pilot and with his oldest son's help, is building an experimental airplane in his spare time.

Special thanks to Morgan Williams whose artistic talent really shows through in page layout design and artwork. We are also grateful to Dr. Clinton Youngberg, Nikki Schab, and Mindy Wise for assistance with modeling, photography and editing.

We are also grateful to Mark Nielsen and Nephi Walton for their work in the Biovere program. The beautiful muscle and skeletal graphics and the anatomy descriptions come from Anatomica3D. (<http://www.biovere.com>)

Dr. Alan G. Beardall



Dr. Alan G. Beardall was born September 7, 1938 and his untimely death occurred December 1, 1987 in an automobile accident while teaching a seminar in England. He was one of the original Diplomats in the International College of Applied Kinesiology. Alan was a nationally ranked distance runner and never missed a day running the roads. Because of his involvement in running he drew many of the nation's elite runners to his office in Lake Oswego, Oregon. As a result, he was presented with many difficult and chronic athletic injuries.

Alan was a perfectionist, which was the driving force that led him to never be satisfied with anything less than maximum function and pain free performance in his patients. He worked tirelessly for years defining and refining the work that became known as

Clinical Kinesiology or CK. CK is a system that enables physicians the ability to isolate and test 310 unilateral muscles in the body for function. In addition, he discovered 8 different reflex systems related to each of the 310 muscles. This revolutionized human performance analysis and treatment. Alan repeatedly stated "you should never treat the same thing twice. If you found the same problem recurring, then you have missed something and you needed to dig deeper into the bodies systems for the answer as to why your treatment did not hold."

Alan was never satisfied until he had figured out the cause of a patient's condition and the best way to correct it. This led him to the study of every technique known in the healing arts. He had the uncanny ability to pull the truth out of a technique and discard the chaff. He was an intuitive genius who seemed to have a connection with a higher source that led him and taught him based on the questions he was asking. He would have a difficult patient that had him stumped as to what to do next. He would sit in his den late at night while his family slept, pouring over volumes of journals and books looking for an answer. By the patient's next visit, Alan was ready to work through his new discovery to see if the patient would respond in a positive way.

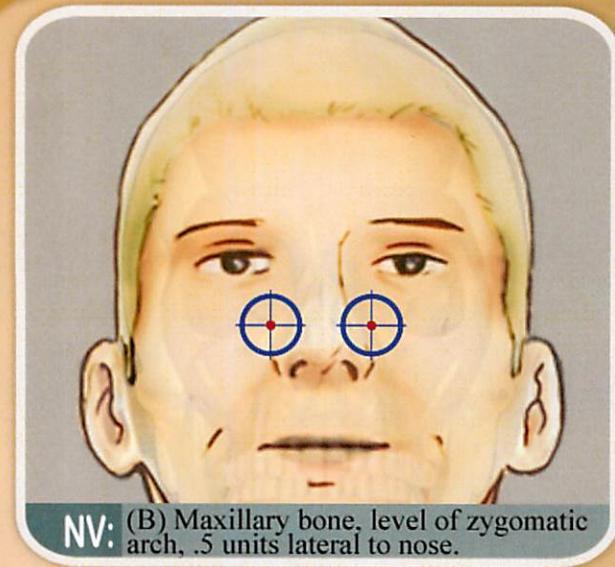
The body was his laboratory and teacher. He was always in awe of the beauty of how wondrous the body was put together and how it could display its truths if asked the right questions. Over the course of the years, problems that had once stifled him became easy to correct. As each new challenge presented itself in his clinic, he faced it with the same drive to understand and succeed as all other challenges that he faced.

Through it all, CK became the base on which AMIT was developed. Alan has been greatly missed yet his passing opened the opportunity for others to grow and develop as we followed in his footsteps. Thank you Alan.

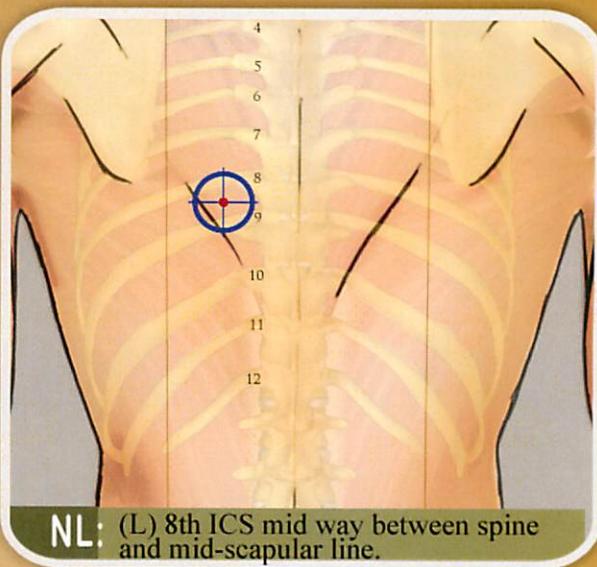
ANTERIOR NECK

274

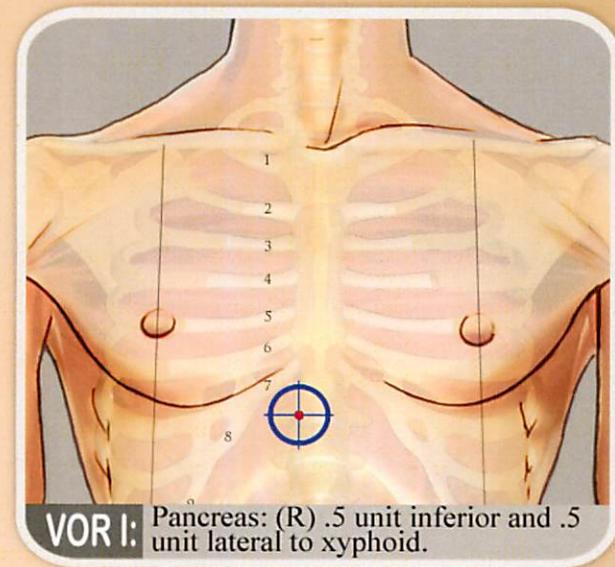
STERNOCLÉIDOMASTOID STERNAL:



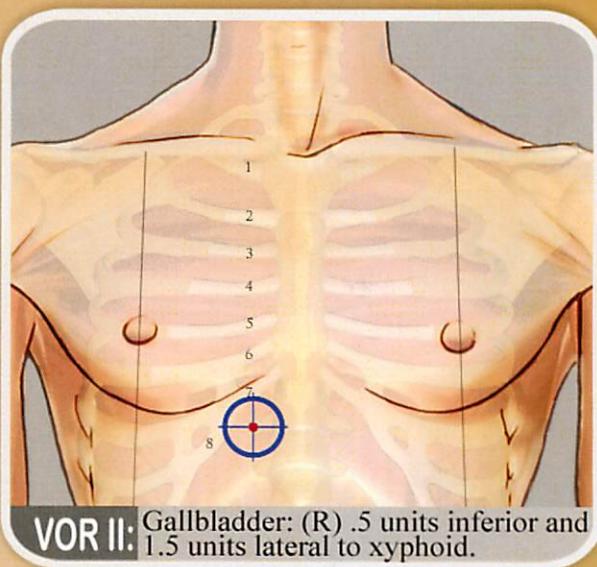
NV: (B) Maxillary bone, level of zygomatic arch, .5 units lateral to nose.



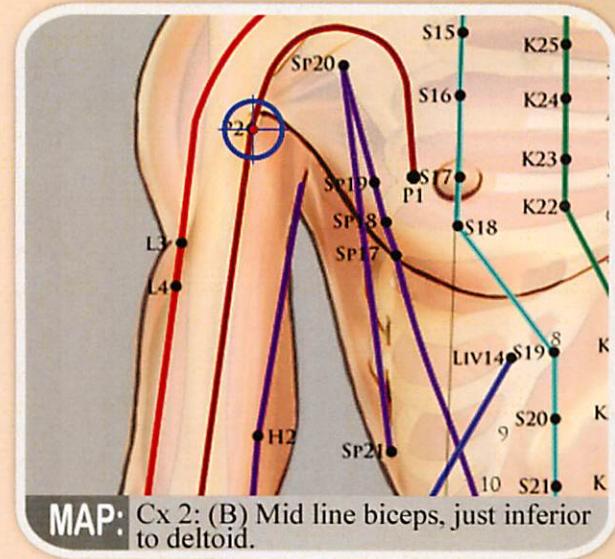
NL: (L) 8th ICS mid way between spine and mid-scapular line.



VOR I: Pancreas: (R) .5 unit inferior and .5 unit lateral to xiphoid.



VOR II: Gallbladder: (R) .5 units inferior and 1.5 units lateral to xiphoid.



MAP: Cx 2: (B) Mid line biceps, just inferior to deltoid.

VL: T8 R

LB: T3 R

MM: C2

CRANIAL: NONE

FOOT: NONE

NUTRIENT: SELENIUM

**ORIGIN:**

Anterior upper margin of the manubrium of the sternum.

**INSERTION:**

Lateral side of the mastoid process and lateral portion of the superior nuchal line.

**FUNCTION:**

Unilaterally it extends the head and rotates it toward the opposite shoulder; flexes and extends the head; raises rib cage.

**NERVE SUPPLY:**

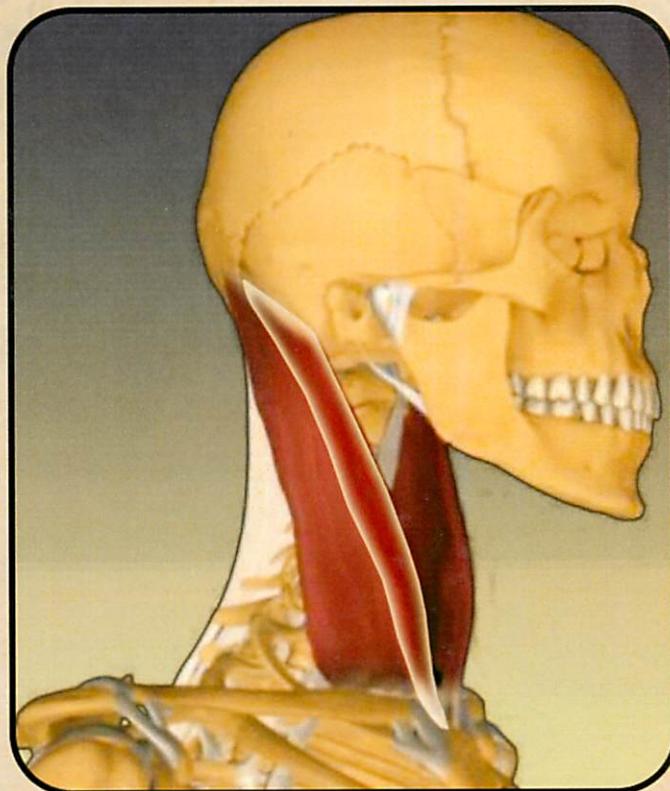
Accessory nerve (Cranial nerve XI) and ventral rami of cervical spinal nerves (C2, 3, and 4).

**BLOOD SUPPLY:**

From superior to inferior the muscle is supplied by the occipital branch of the posterior auricular, the sternocleidomastoid branches of the occipital artery, the sternocleidomastoid artery from the superior thyroid artery (sometimes arising directly from the external carotid artery), and from the suprascapular and superficial cervical arteries from the subclavian artery.

**TEST:**

PATIENT: Supine. Rotate head 45° contralateral. Flex neck on trunk 45°.

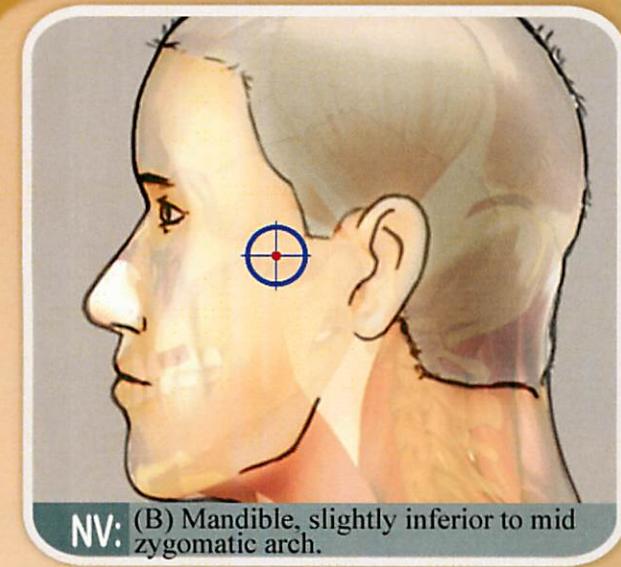


EXAMINER: Side of table. Contact temporal and sphenoid bones. Extend neck saggittally.

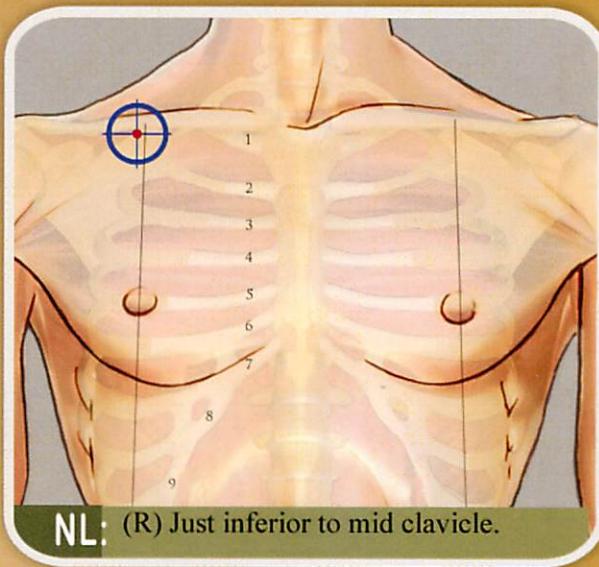


ANTERIOR NECK

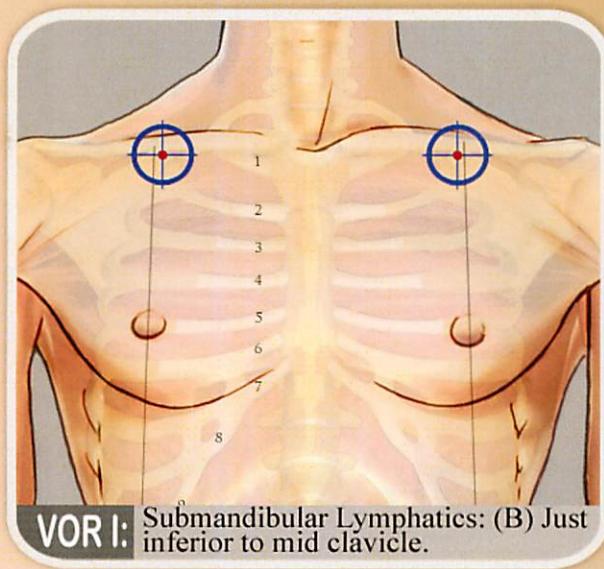
276 STERNOCLÉIDOMASTOID CLAVICULAR:



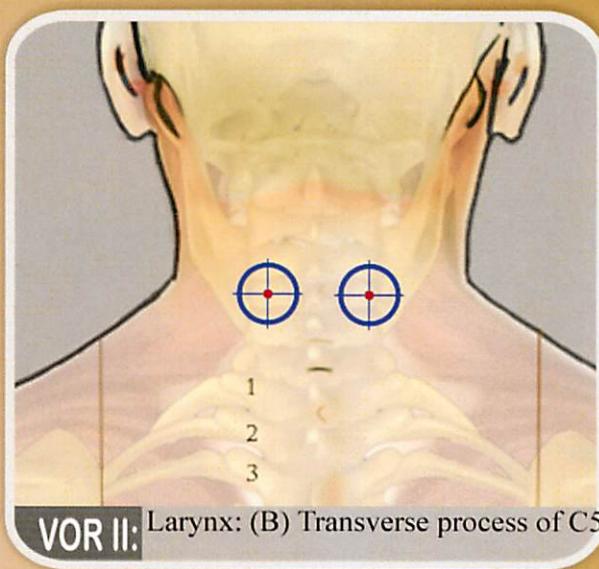
NV: (B) Mandible, slightly inferior to mid zygomatic arch.



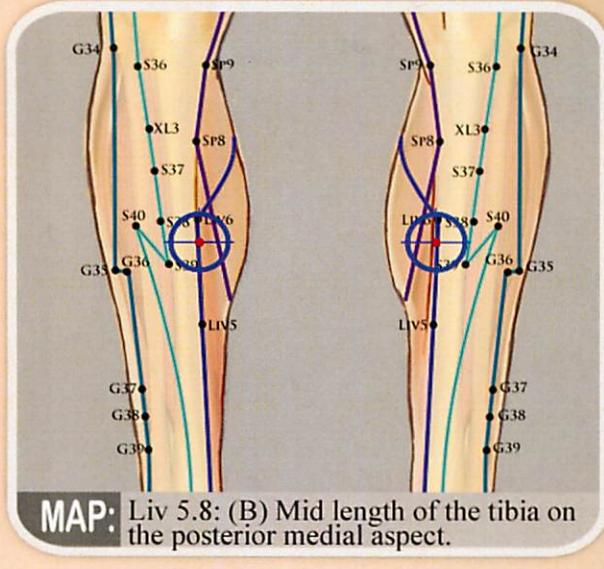
NL: (R) Just inferior to mid clavicle.



VOR I: Submandibular Lymphatics: (B) Just inferior to mid clavicle.



VOR II: Larynx: (B) Transverse process of C5.



MAP: Liv 5.8: (B) Mid length of the tibia on the posterior medial aspect.

VL: T6 R

LB: T5 R

MM: C3

CRANIAL: GLEBA

FOOT: 4TH METATARSAL

NUTRIENT: NIACIN

**ORIGIN:**

Superior aspect of the medial third of the clavicle.

**INSERTION:**

Lateral side of the mastoid process and lateral portion of the superior nuchal line.

**FUNCTION:**

Unilaterally it flexes the head and rotates it toward the opposite shoulder; flexes and extends the head; raises rib cage.

**NERVE SUPPLY:**

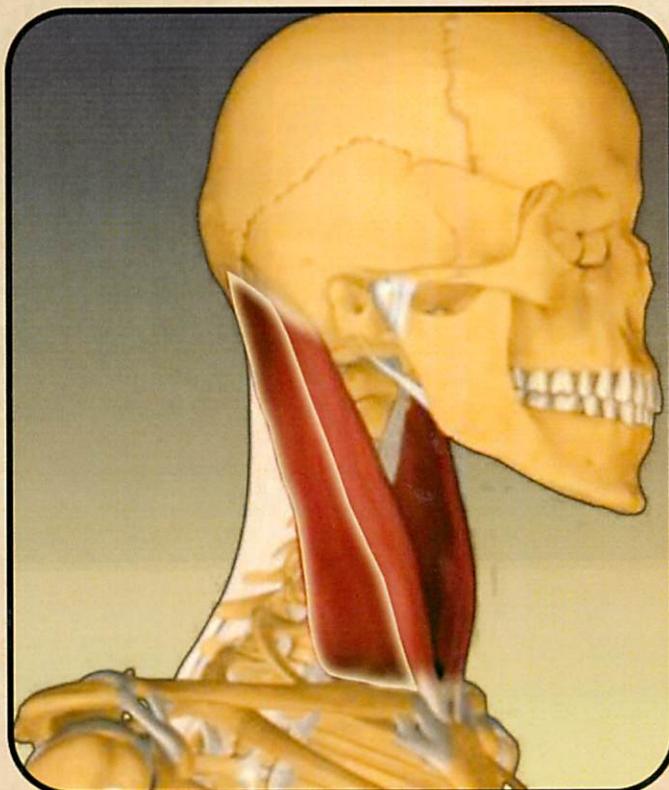
Accessory nerve (Cranial nerve XI) and ventral rami of cervical spinal nerves (C2, 3, and 4).

**BLOOD SUPPLY:**

From superior to inferior the muscle is supplied by the occipital branch of the posterior auricular, the sternocleidomastoid branches of the occipital artery, the sternocleidomastoid artery from the superior thyroid artery (sometimes arising directly from the external carotid artery), and from the suprascapular and superficial cervical arteries from the subclavian artery.

**TEST:**

PATIENT: Supine. Rotate head 45° contralateral. Flex neck on trunk 45°.

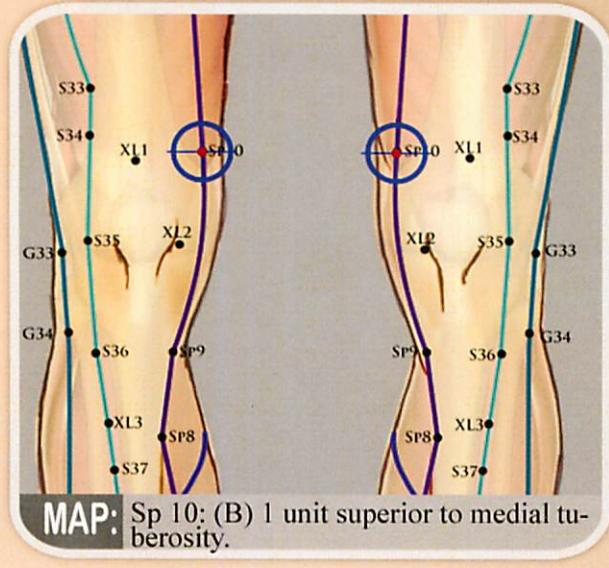
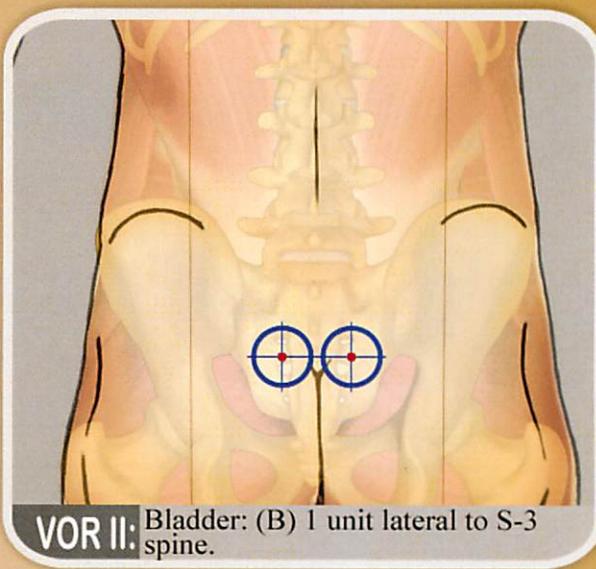
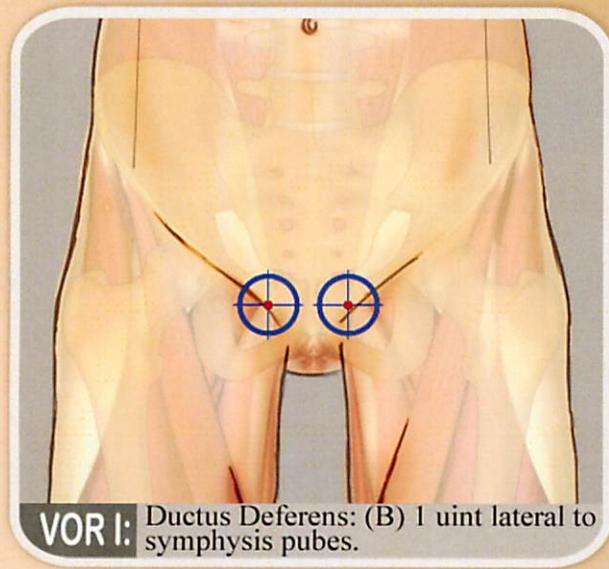
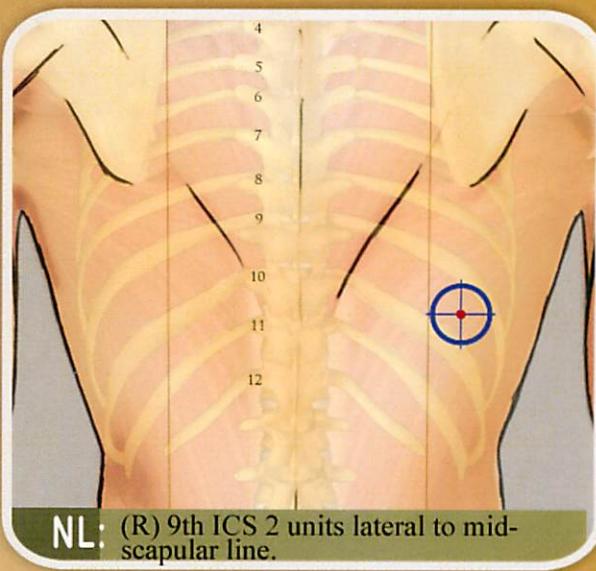
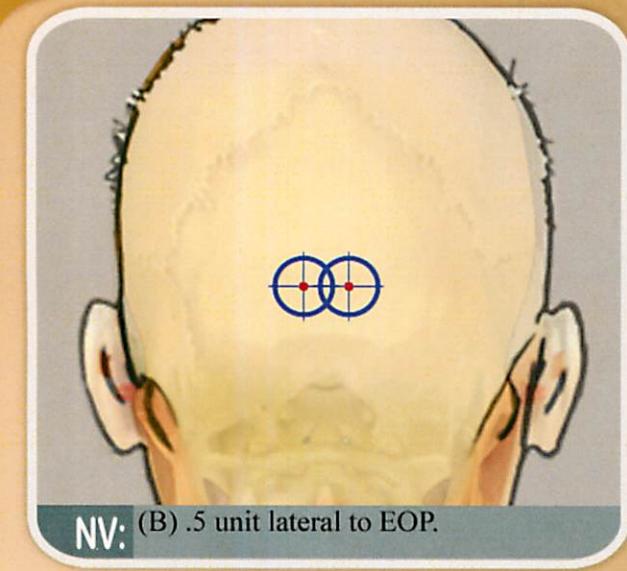


EXAMINER: Side of table. Contact temporal bone. Extend neck obliquely 45° contralateral.



ANTERIOR NECK

278 SCALENE ANTERIOR:



VL: L1 R
LB: C5 R
MM: C4

CRANIAL: PARIETAL

FOOT: TALUS

NUTRIENT: ARGinine

**ORIGIN:**

Anterior tubercles of the transverse processes of C3, C4, C5, and C6.

**INSERTION:**

Scalene tubercle of the first rib.

**FUNCTION:**

Flexes, laterally flexes, and rotates the cervical vertebrae; elevates the first rib.

**NERVE SUPPLY:**

Branches from the cervical ventral rami (C4, C5, and C6).

**BLOOD SUPPLY:**

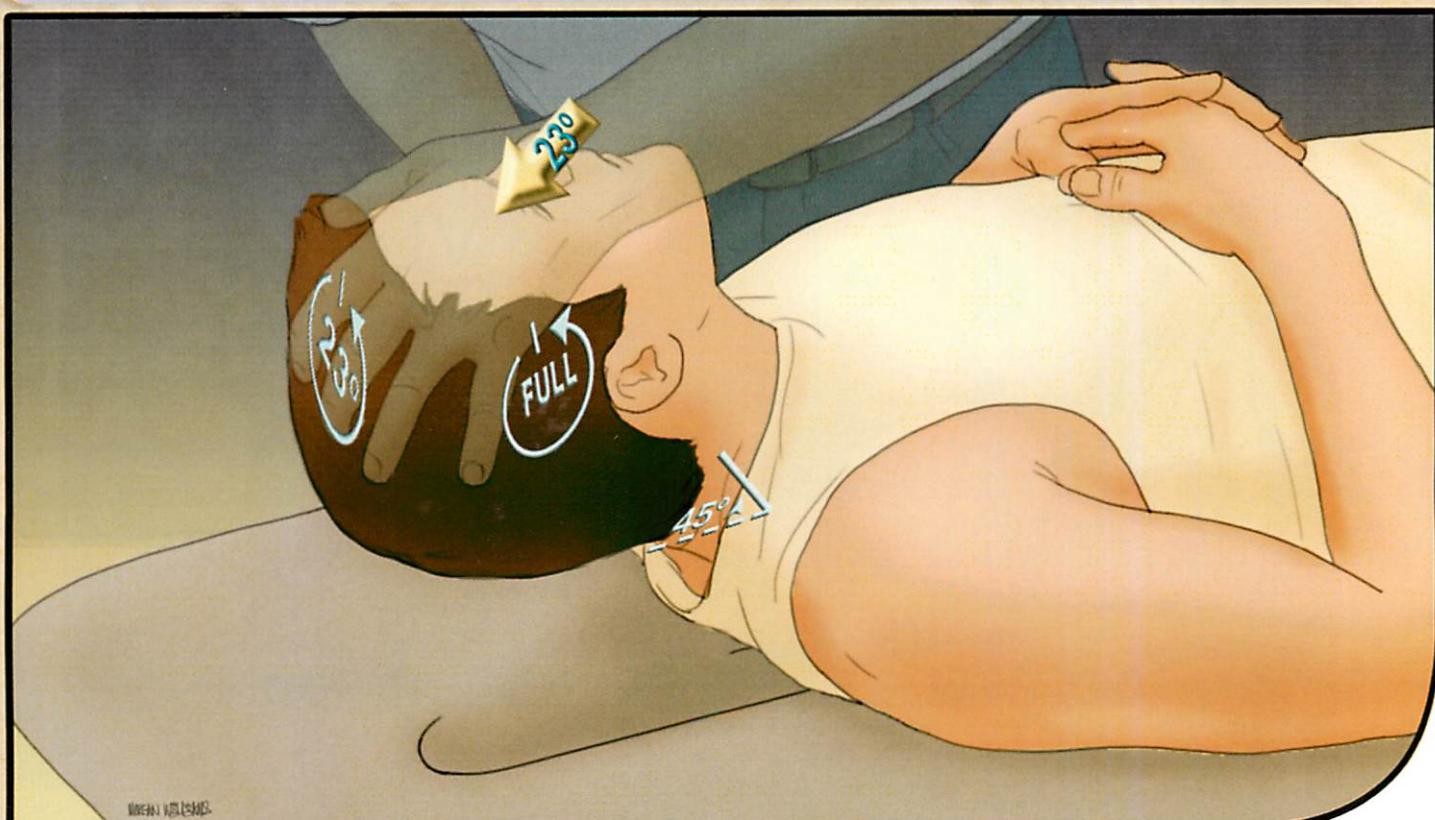
The ascending cervical and various muscular branches from the inferior thyroid, which is a branch of the thyrocervical trunk of the subclavian artery, supply the muscle. It also receives blood from the suprascapular artery, superficial cervical artery, and dorsal scapular artery.

**TEST:**

PATIENT: Supine. 23° contralateral rotation head. Full extension of head on neck. 45° flexion of neck on trunk.



EXAMINER: Side of table. Contact maxillary and frontal bones. Extend head on neck 23° contralateral.



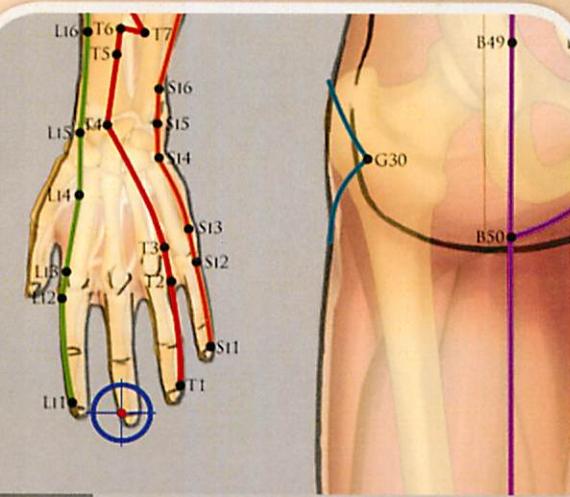
ANTERIOR NECK

NV: (B) Superior temporal line of frontal bone, just superior to supraorbital ridge.

NL: (R) 6th ICS 3 units lateral to spine.

VOR I: Submandibular Lymphatics: (B) 1 unit lateral to spine at C5.

VOR II: Gallbladder: (R) 1.5 units inferior and 1.5 units lateral to xiphoid.



MAP: Cx 9: (B) Base of nail of middle finger on thumb side.

VL: L4 L

LB: C4 L

MM: C4

CRANIAL: OCCIPITAL

FOOT:

NUTRIENT: ARGININE

**ORIGIN:**

Anterior surface of the axis' transverse process and the anterior surface of the posterior tubercles of the transverse processes of C3-C7.

**INSERTION:**

Superior surface of first rib between the subclavian groove and the tubercle.

**FUNCTION:**

Laterally flexes the cervical vertebrae; elevates the first rib; active in all aspects of breathing.

**NERVE SUPPLY:**

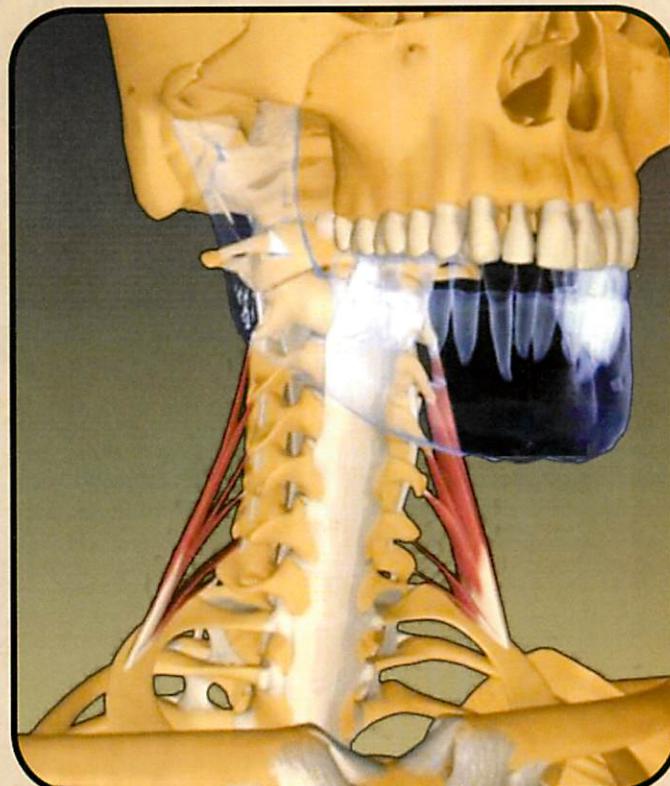
Branches of the cervical ventral rami (C3, C4, C5, C6, C7, and C8).

**BLOOD SUPPLY:**

The ascending cervical and various muscular branches from the inferior thyroid, which is a branch of the thyrocervical trunk of the subclavian artery, supply the muscle. It also receives blood from the suprascapular artery and the superficial cervical artery.

**TEST:**

PATIENT: Supine. Rotate head 23° contralateral. Full extension of head on neck. Flex neck on trunk 45°.



EXAMINER: Side of table. Contact maxillary and frontal bones. Extend head on neck obliquely 45° contralateral.



ANTERIOR NECK

NV: Sagittal suture 2 units posterior to anterior Fontanel.

NL: (R) 10th ICS at mid-axillary line.

VOR I: Kidney: (B) 1 unit superior and 2 units lateral to umbilicus.

VOR II: Urethra: (B) 2 units lateral to sacro-coccyx junction.

MAP: Tw 10.2: (B) Mid posterior humerus.

VL: T12 L

LB: C6 L

MM: C5

CRANIAL: ETHMOID

FOOT: 1ST CUNIEFORM

NUTRIENT: SODIUM

**ORIGIN:**

Tips of the posterior tubercles of the transverse processes of C4, C5, and C6.

**INSERTION:**

External surface of the second rib posterior to the tubercle for the serratus anterior.

**FUNCTION:**

Laterally flexes the lower cervical vertebrae; elevates the second rib.

**NERVE SUPPLY:**

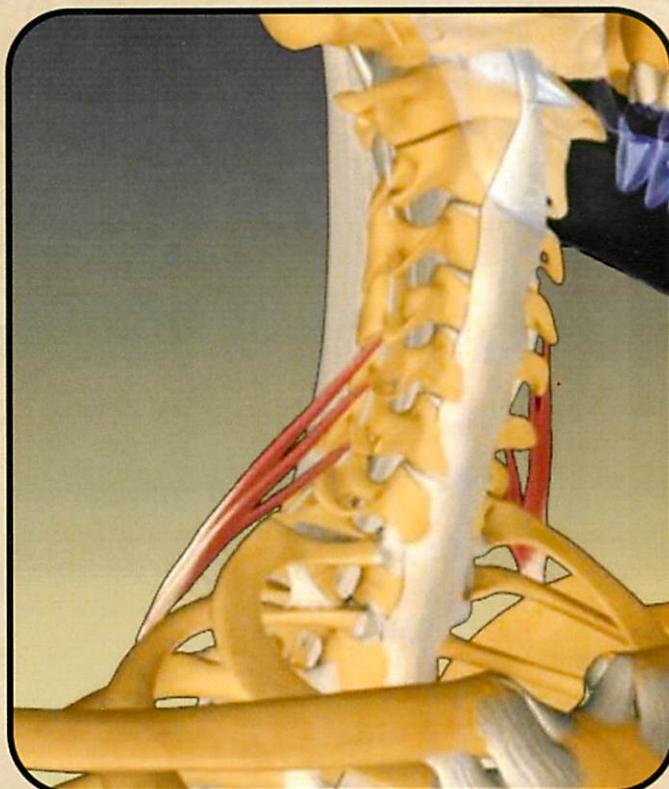
Branches of the ventral rami of cervical spinal nerves (C6, C7, and C8).

**BLOOD SUPPLY:**

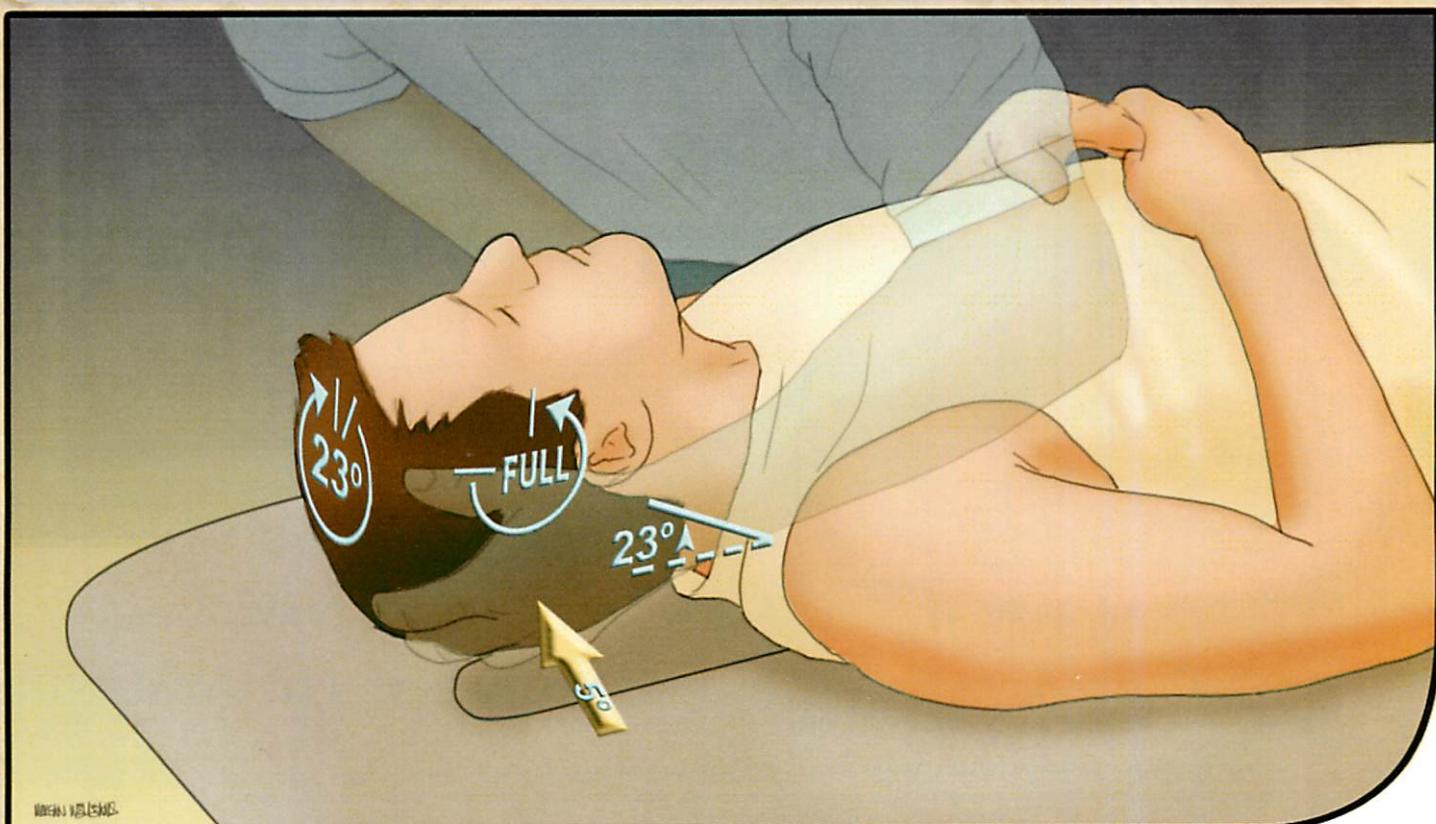
The ascending cervical and various muscular branches from the inferior thyroid, which is a branch of the thyrocervical trunk of the subclavian artery, supply the muscle. It also receives blood from the suprascapular artery, the superficial cervical artery, and the first posterior intercostal artery.

**TEST:**

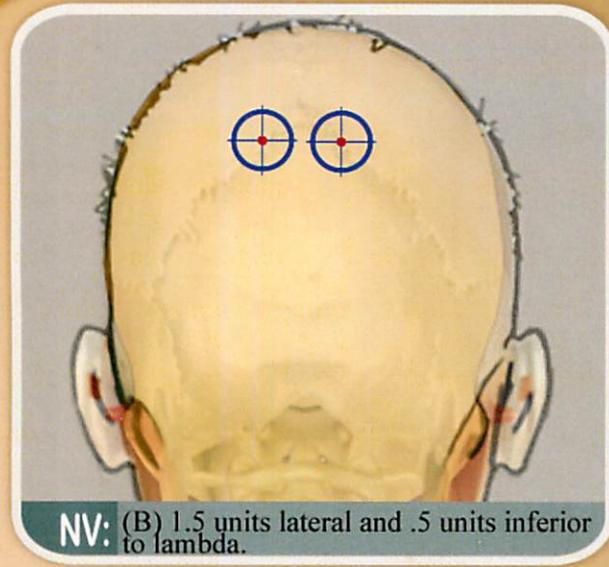
PATIENT: Supine. Rotate head 23° contralateral. Full extension of head on neck. Flex neck on trunk 23°.



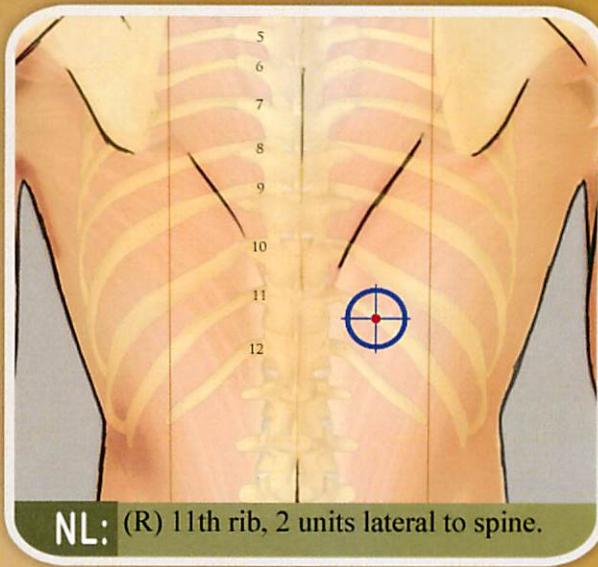
EXAMINER: Side of table. Contact maxillary and frontal bones. Contralaterally flex neck along coronal plane of body and slightly anterior.



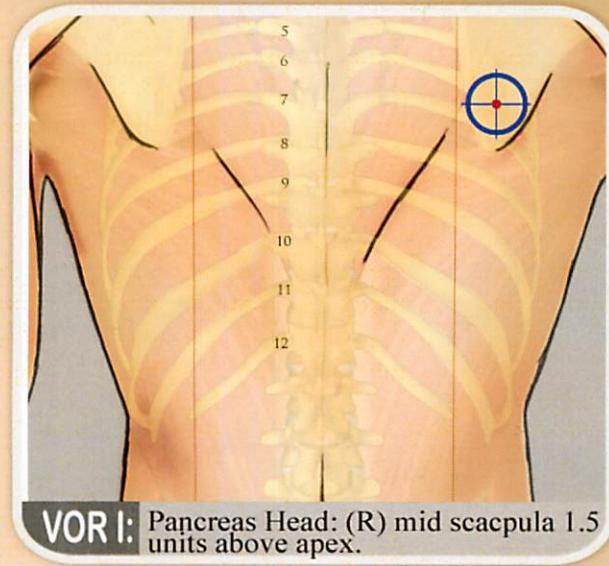
ANTERIOR NECK



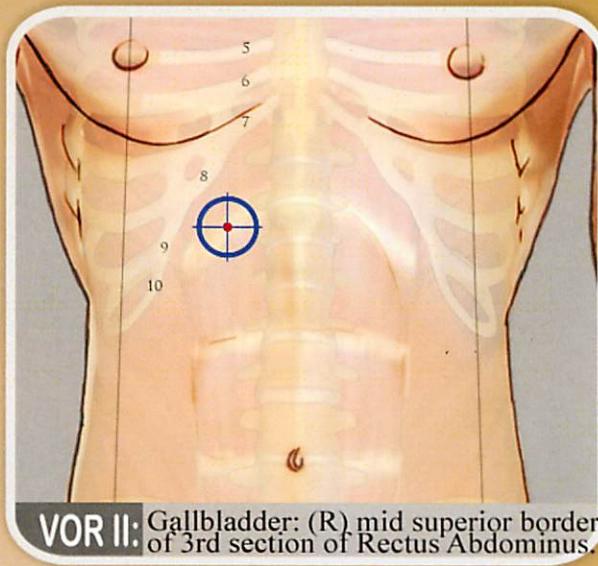
NV: (B) 1.5 units lateral and .5 units inferior to lambda.



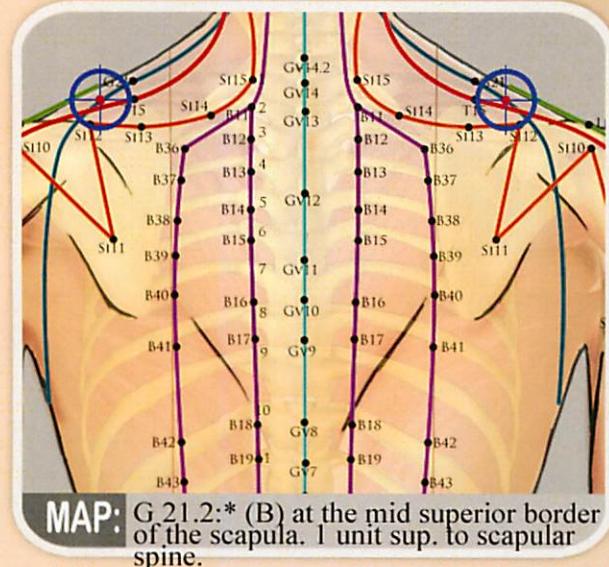
NL: (R) 11th rib, 2 units lateral to spine.



VOR I: Pancreas Head: (R) mid scapula 1.5 units above apex.



VOR II: Gallbladder: (R) mid superior border of 3rd section of Rectus Abdominus.



MAP: G 21.2:*(B) at the mid superior border of the scapula. 1 unit sup. to scapular spine.

*Stimulation sometimes will cause paraesthesia in the legs.

VL: T3 L

LB: T8 L

MM: C3

CRANIAL: ZYGOMA

FOOT: NAVICULAR

NUTRIENT: PHENYLALANINE

**ORIGIN:**

Anterior tubercles of C3-C5.

**INSERTION:**

Anterior tubercle of C1.

**FUNCTION:**

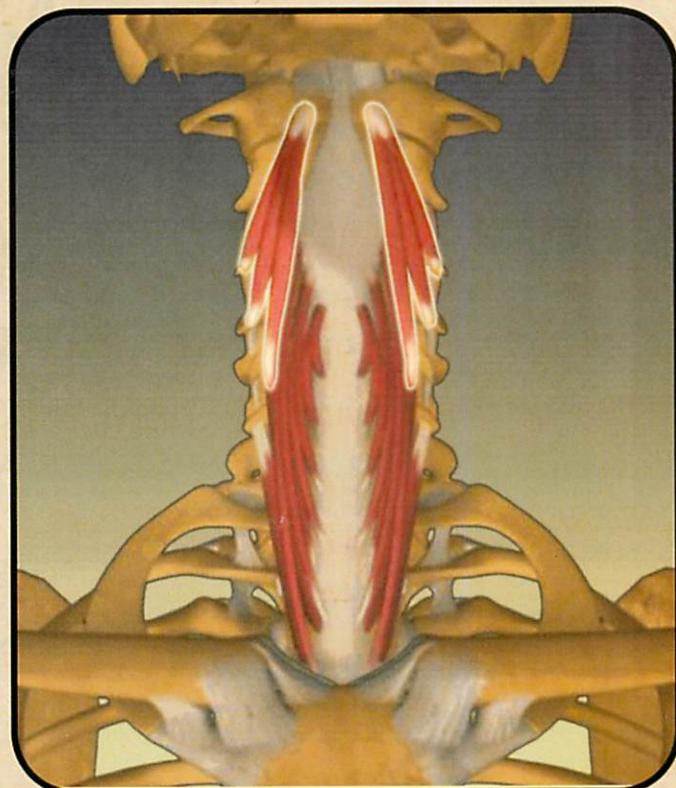
Flexes the neck and rotates it to the opposite side.

**NERVE SUPPLY:**

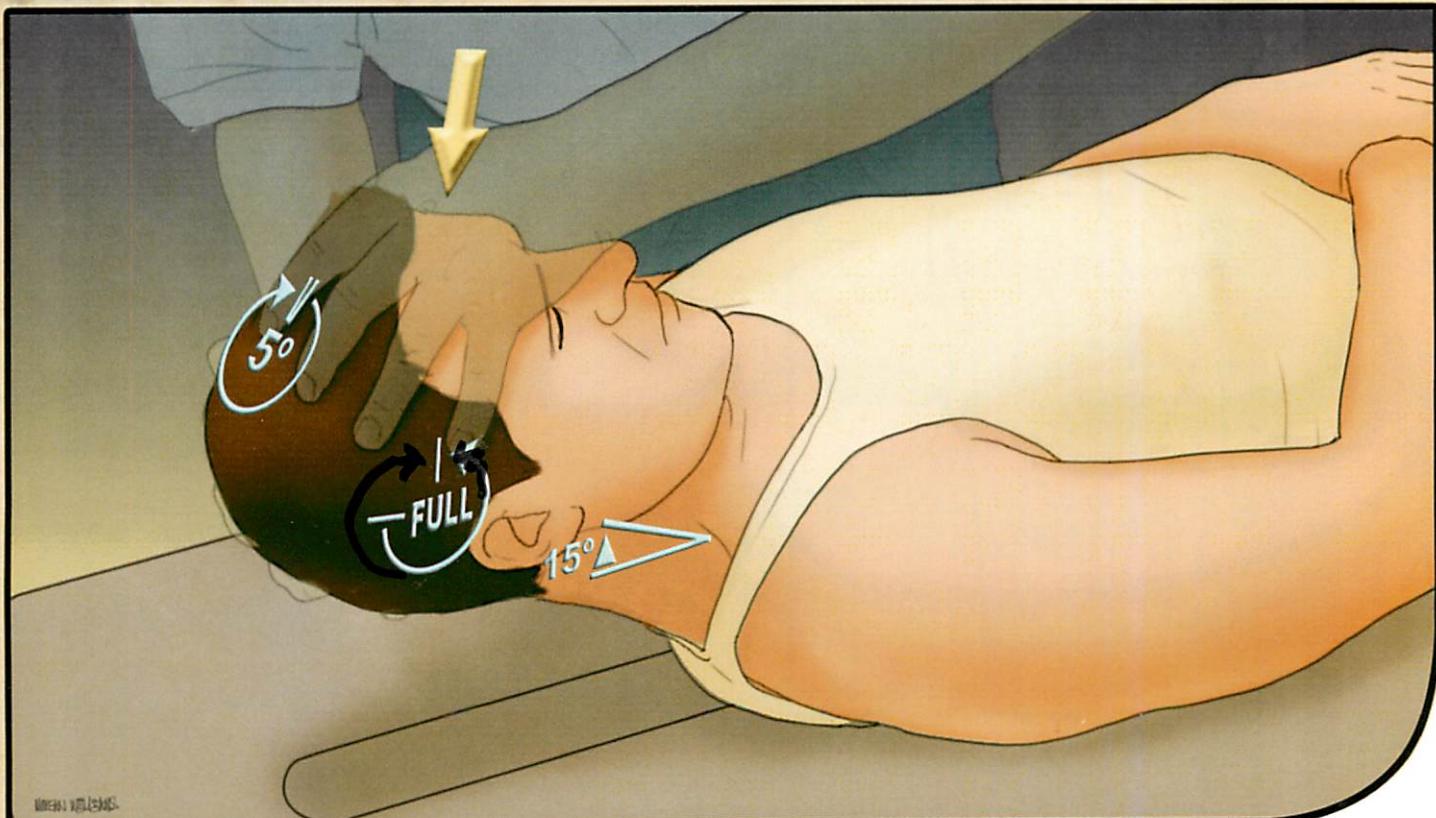
Flexes the neck and rotates it to the opposite side.

**BLOOD SUPPLY:**

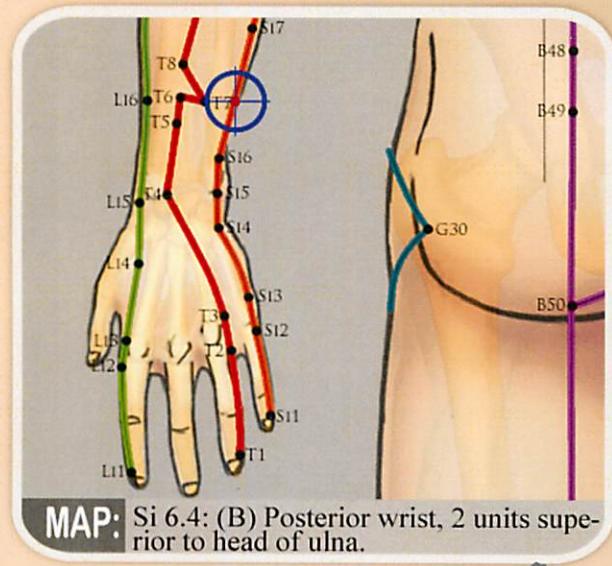
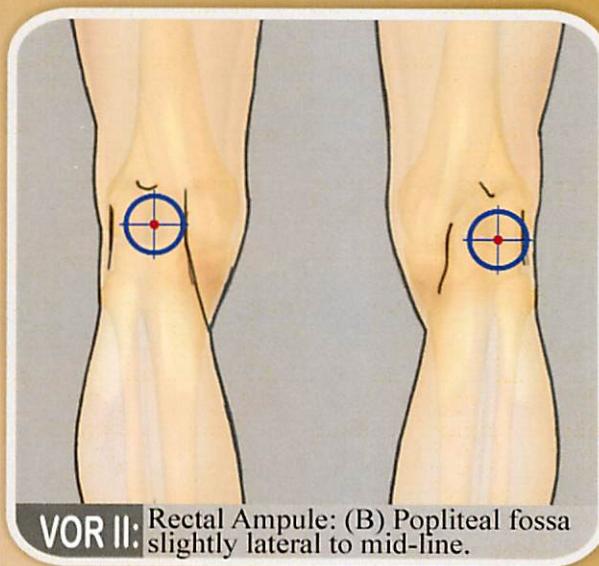
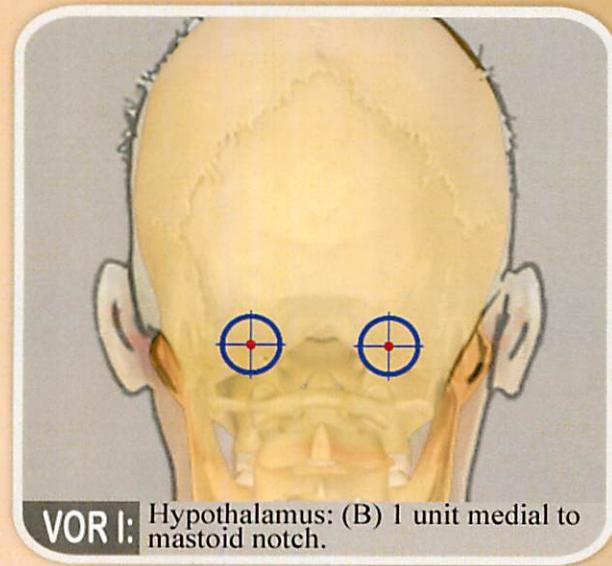
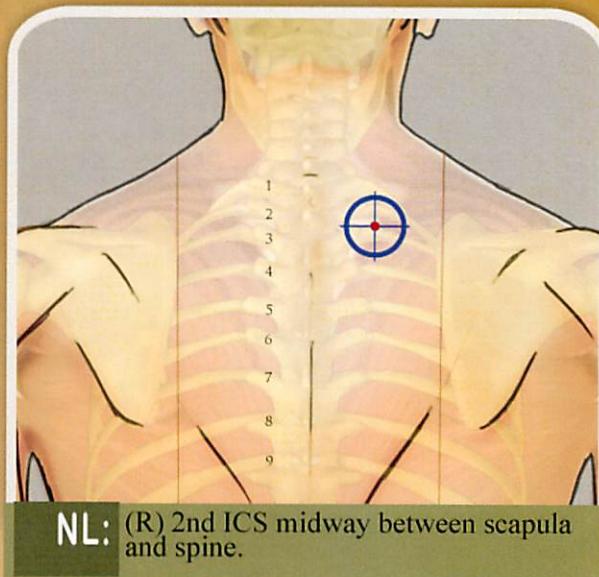
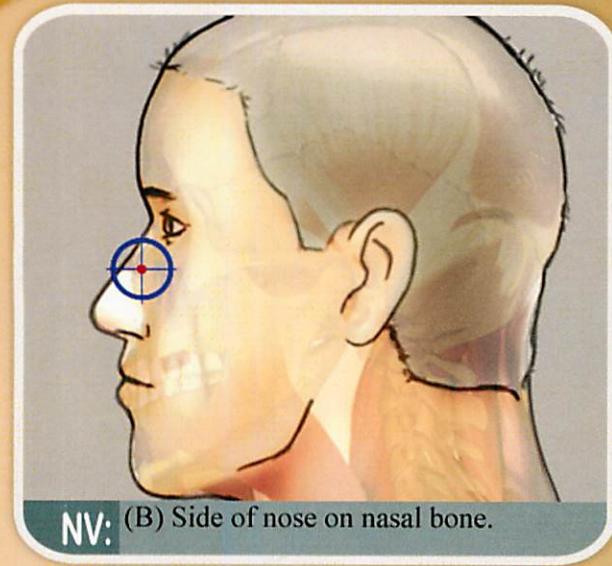
The muscle receives blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery. It also receives blood from the ascending pharyngeal artery.

**TEST:**PATIENT: Supine. Rotate head 5° ipsilateral. ^{contral}
Full ~~rotation~~ of head on neck. Flex neck 15° on trunk.

EXAMINER: Side of table. Contact frontal. Extend neck on trunk through saggital plane of body.



ANTERIOR NECK



VL: T7 R

LB: T4 R

MM: C4

CRANIAL: VOMER

FOOT: CALCANEUS

NUTRIENT: B12



ORIGIN:
Anterior vertebral bodies of C6-T2.



INSERTION:
Anterior vertebral bodies of C3-C4.



FUNCTION:
Flexes the neck and rotates it to the opposite side.



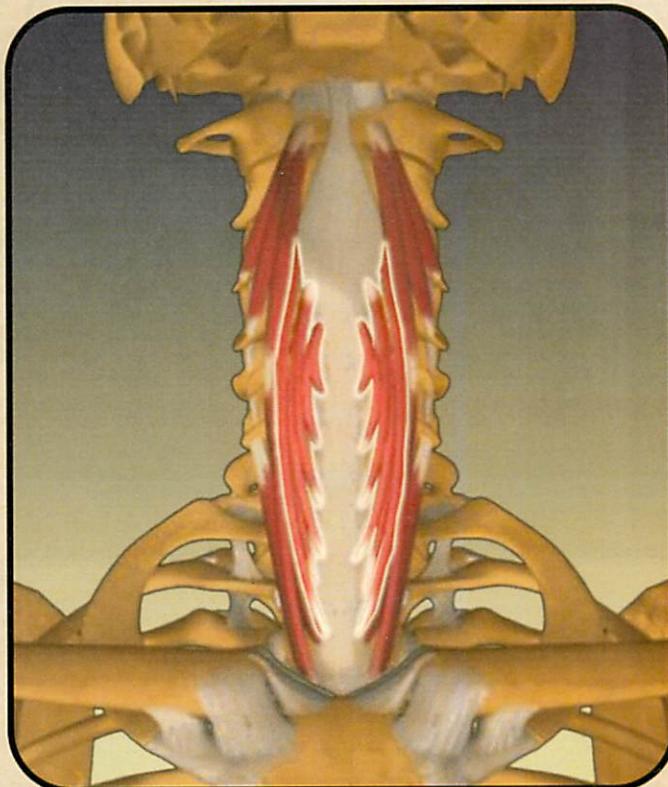
NERVE SUPPLY:
Branches from cervical ventral rami (C2, C3, C4, C5, and C6).



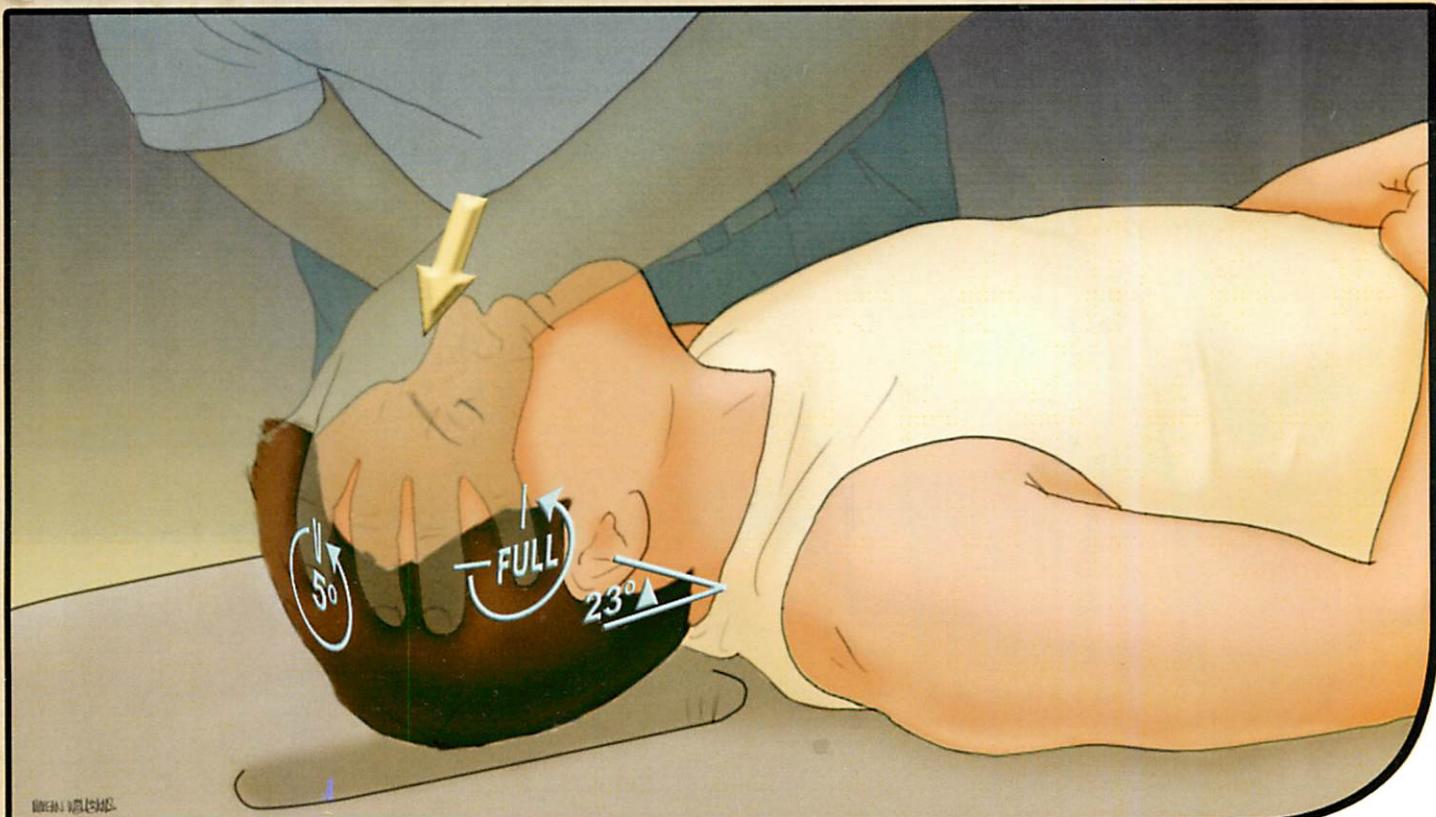
BLOOD SUPPLY:
The muscle receives blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery. It also receives blood from the ascending pharyngeal artery.



TEST:
PATIENT: Supine. 5° rotation of head to ipsilateral side. Full extension of head on neck. 23° flexion of neck on trunk.

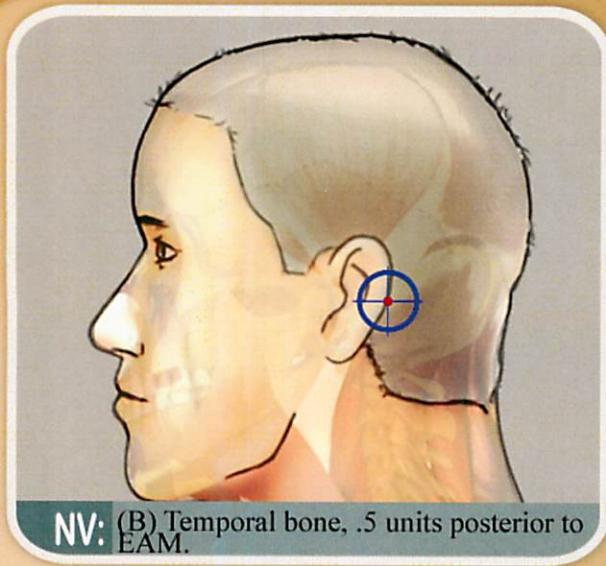


EXAMINER: Side of table. Contact frontal. Extend neck on trunk through sagittal plane of body.

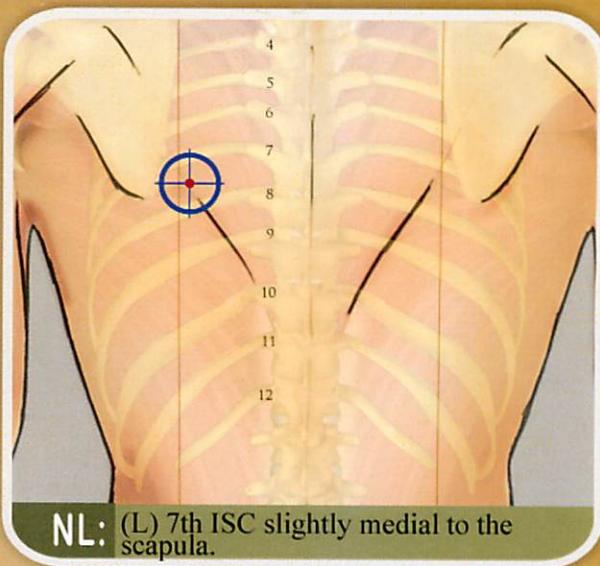


ANTERIOR NECK

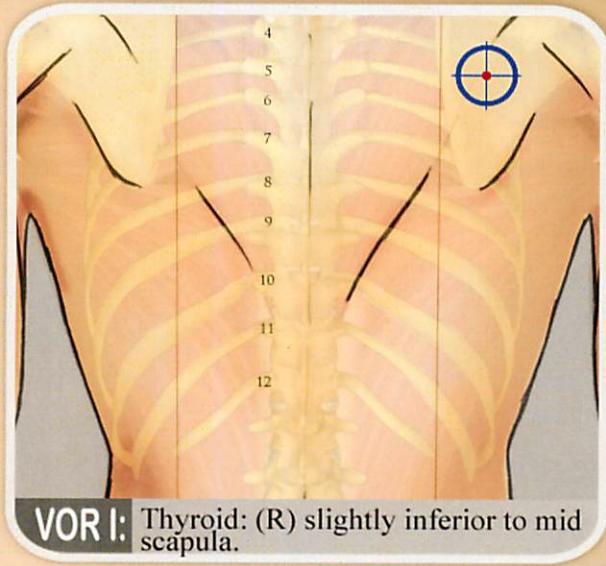
312 LONGUS COLLI, INFERIOR OBLIQUE



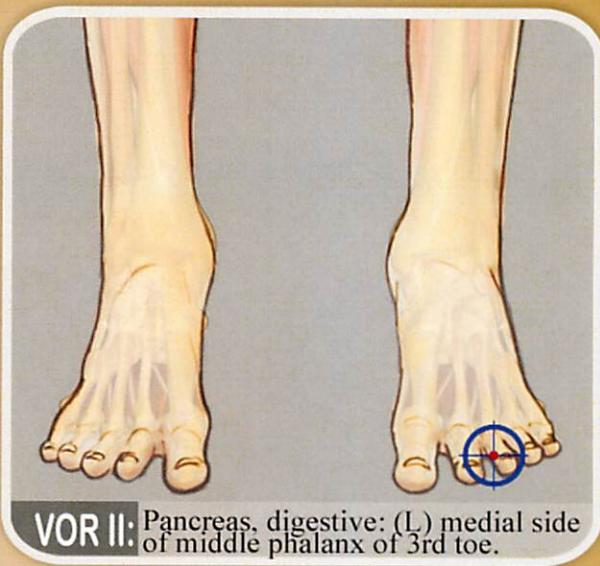
NV: (B) Temporal bone, .5 units posterior to EAM.



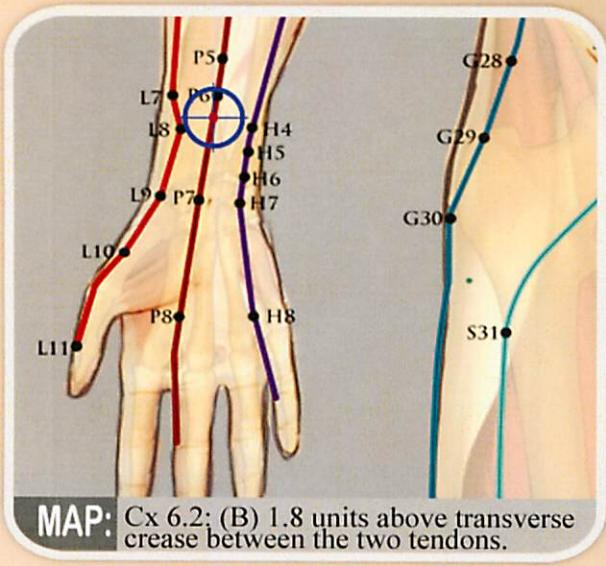
NL: (L) 7th ISC slightly medial to the scapula.



VOR I: Thyroid: (R) slightly inferior to mid scapula.



VOR II: Pancreas, digestive: (L) medial side of middle phalanx of 3rd toe.



MAP: Cx 6.2; (B) 1.8 units above transverse crease between the two tendons.

VL: T9 L

LB: T2 L

MM: C7

CRANIAL: MAXILLAE

FOOT: NAVICULAR

NUTRIENT: SELENIUM

**ORIGIN:**

Anterior bodies of T1-T3.

**INSERTION:**

Anterior tubercles of C4-C6.

**FUNCTION:**

Flexes the neck and rotates it to the opposite side.

**NERVE SUPPLY:**

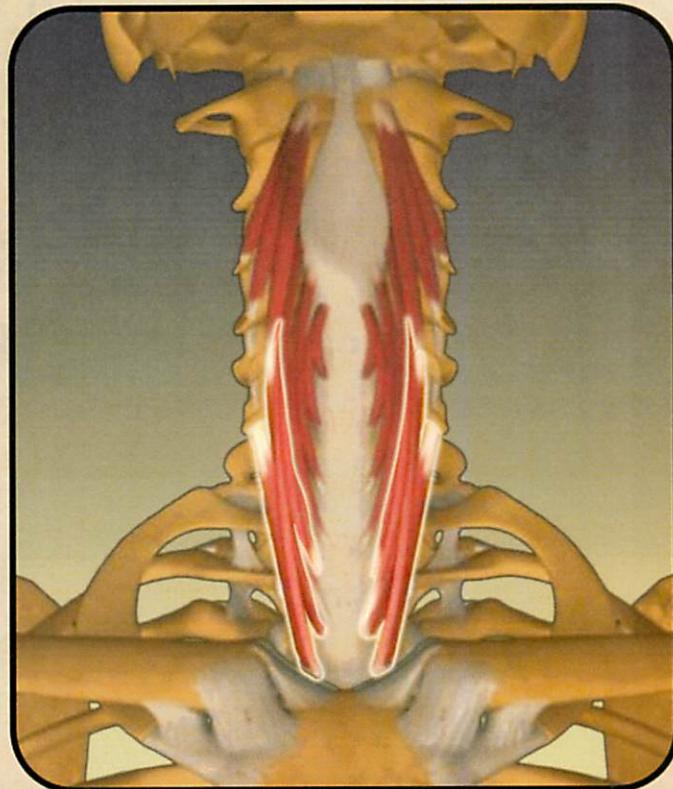
Branches from cervical ventral rami (C2, C3, C4, C5, and C6).

**BLOOD SUPPLY:**

The muscle receives blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery. It also receives blood from the ascending pharyngeal artery.

**TEST:**

PATIENT: Supine. 5° rotation of head to ipsilateral side. Full extension of head on neck. 45° flexion of neck on trunk.

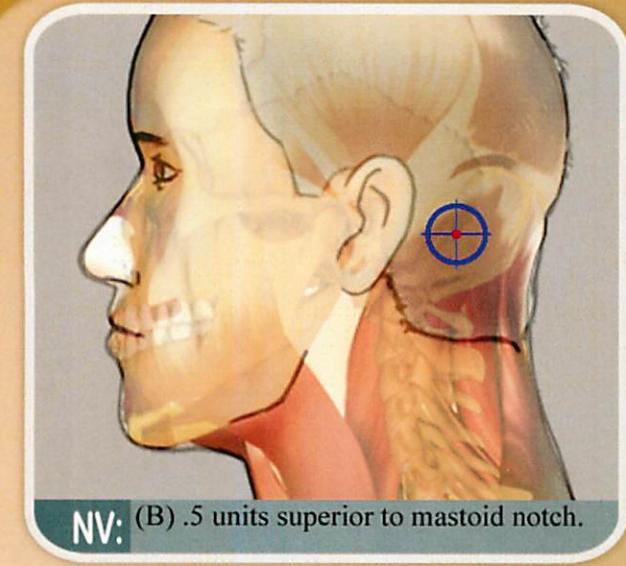


EXAMINER: Side of table. Contact frontal. Extend neck on trunk through saggital plane of body.

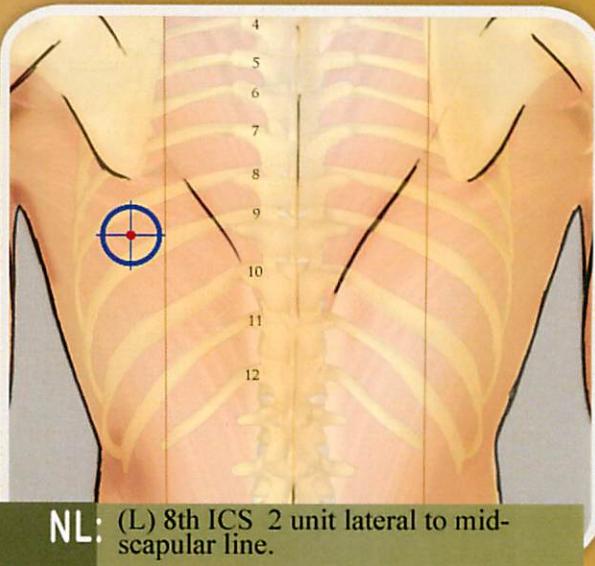


ANTERIOR NECK

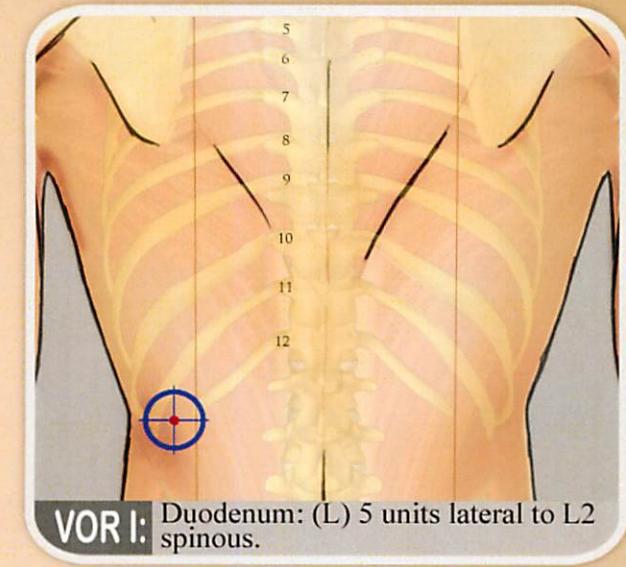
314 LONGUS CAPITIS:



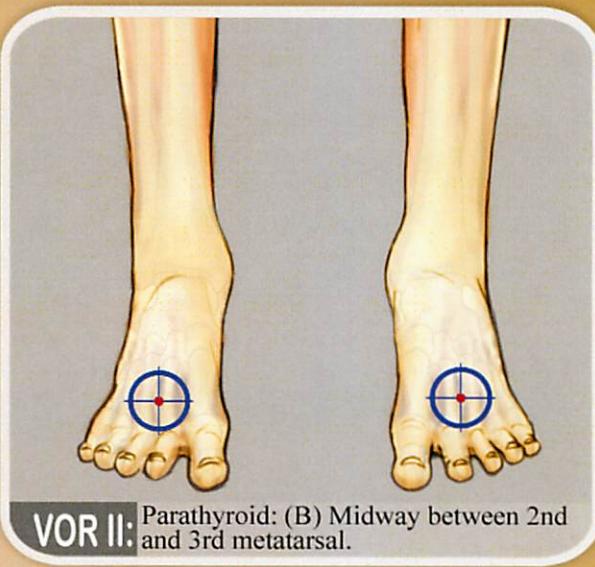
NV: (B) .5 units superior to mastoid notch.



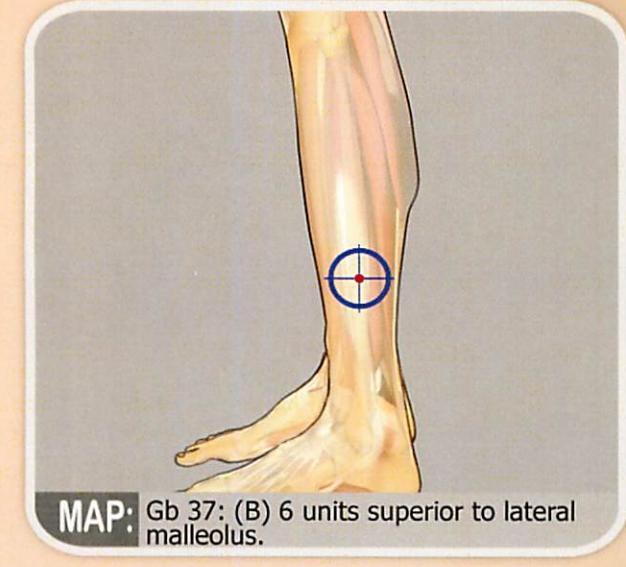
NL: (L) 8th ICS 2 unit lateral to mid-scapular line.



VOR I: Duodenum: (L) 5 units lateral to L2 spinous.



VOR II: Parathyroid: (B) Midway between 2nd and 3rd metatarsal.



MAP: Gb 37: (B) 6 units superior to lateral malleolus.

VL: T6 L

LB: T5 L

MM: C2

CRANIAL: TEMPORAL

FOOT: CUBOID

NUTRIENT: CHLOROPHYLL

**ORIGIN:**

Anterior tubercles of the transverse processes of C3, C4, C5, and C6.

**INSERTION:**

Inferior surface of the basioccipital bone.

**FUNCTION:**

Flexes the head.

**NERVE SUPPLY:**

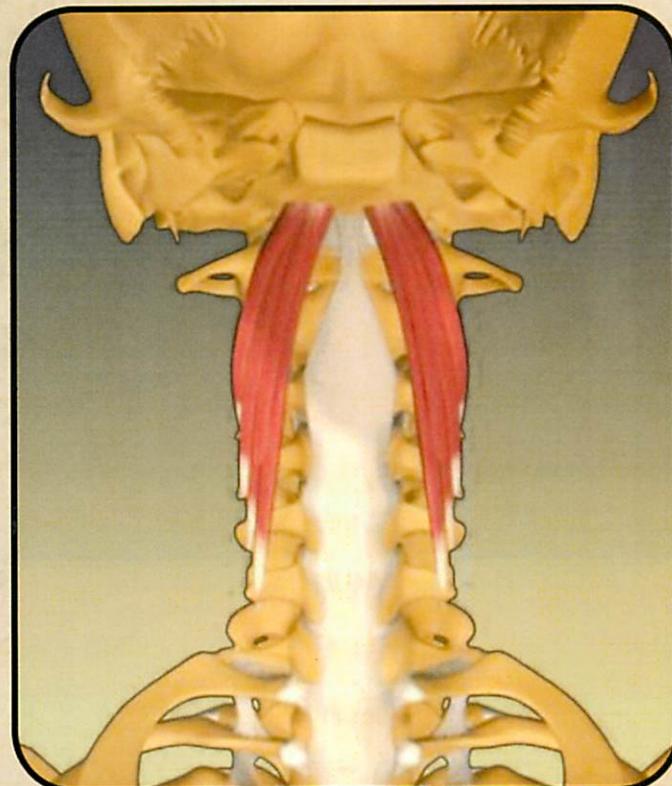
Branches of the cervical ventral rami (C1, C2, and C3).

**BLOOD SUPPLY:**

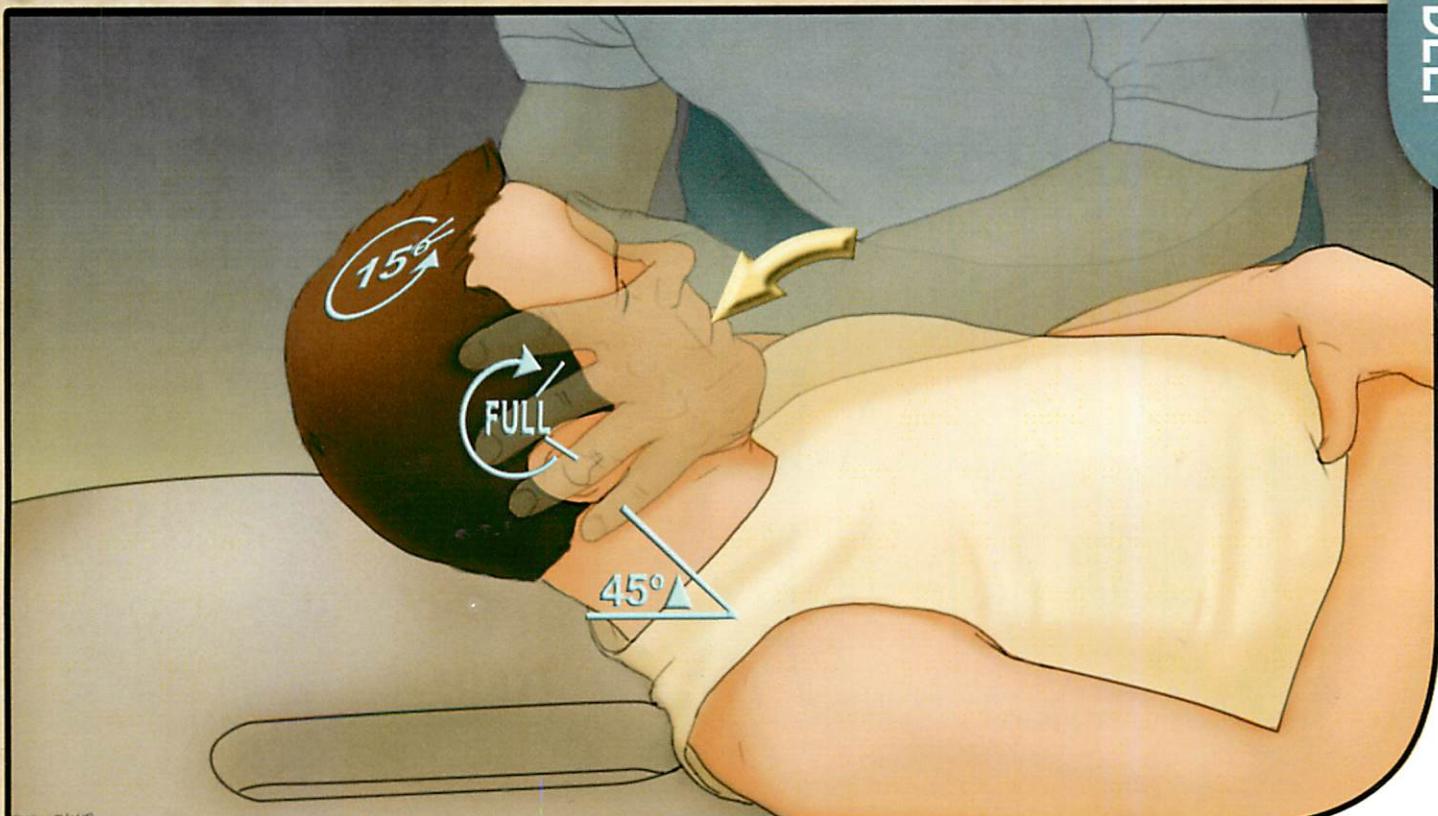
The muscle receives blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery. It also receives blood from the ascending pharyngeal artery.

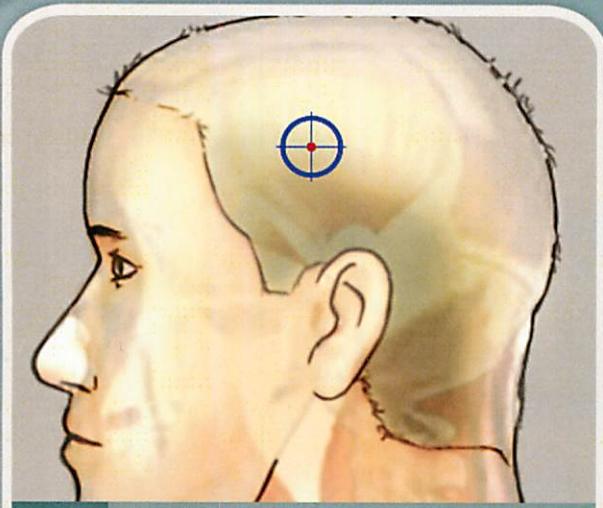
**TEST:**

PATIENT: Supine. Rotate head 15° contralateral. Full flexion of head on neck. Flex neck on trunk 45°.

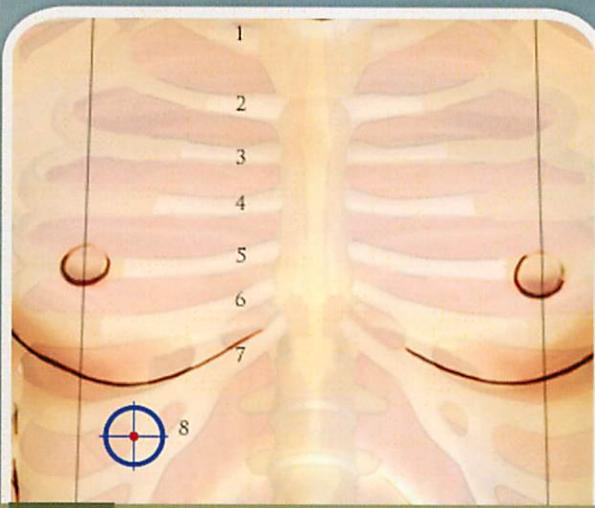


EXAMINER: Side of table. Contact maxillary and frontal bones. Extend head on neck through sagittal plane of the body.

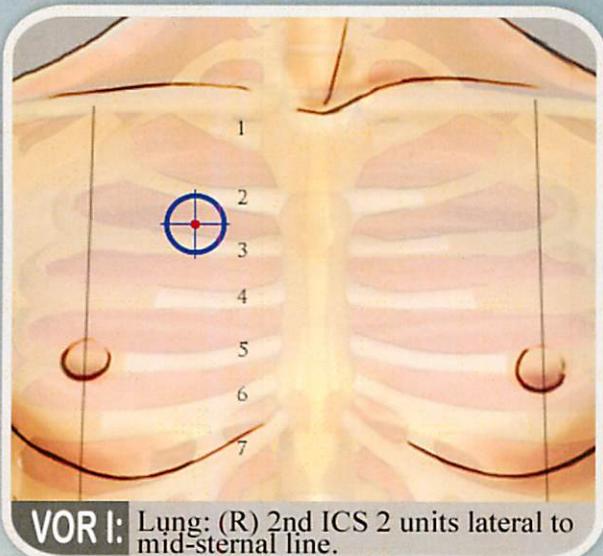




NV: (B) 2.5 Units superior and 1 unit anterior to EAM.



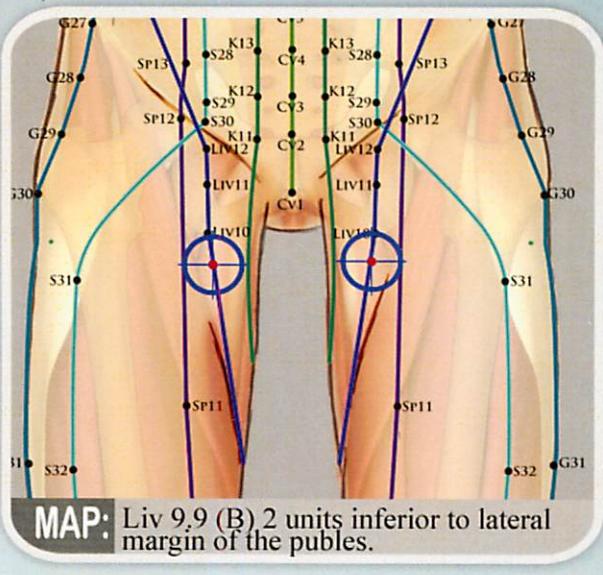
NL: (R) 7th ICS 1 unit medial to mid-clavicular line.



VOR I: Lung: (R) 2nd ICS 2 units lateral to mid-sternal line.



VOR II: Colon: (L) 2 units lateral and 1/2 unit superior to umbilicus.



MAP: Liv 9,9 (B), 2 units inferior to lateral margin of the pubes.

VL: T5 R

LB: T6 R

MM: C2

CRANIAL: ZYGOMA

FOOT: 2ND METATARSAL

NUTRIENT:

**ORIGIN:**

Anterior margin of the lateral mass of the atlas at the base of the transverse process.

**INSERTION:**

Inferior surface of the occipital bone just anterior to the occipital condyle.

**FUNCTION:**

Possibly weakly assist with lateral flexion of the cervical. Weakly assists with flexion of the head. Probably is a postural muscle that helps monitor the head's position and movement.

**NERVE SUPPLY:**

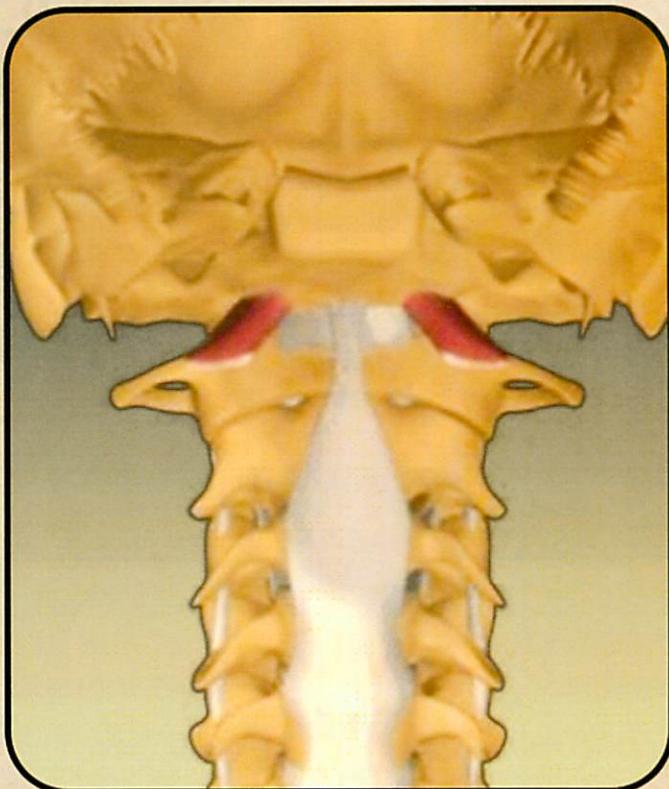
Branches of the ventral rami of cervical spinal nerves (C2 to C8).

**BLOOD SUPPLY:**

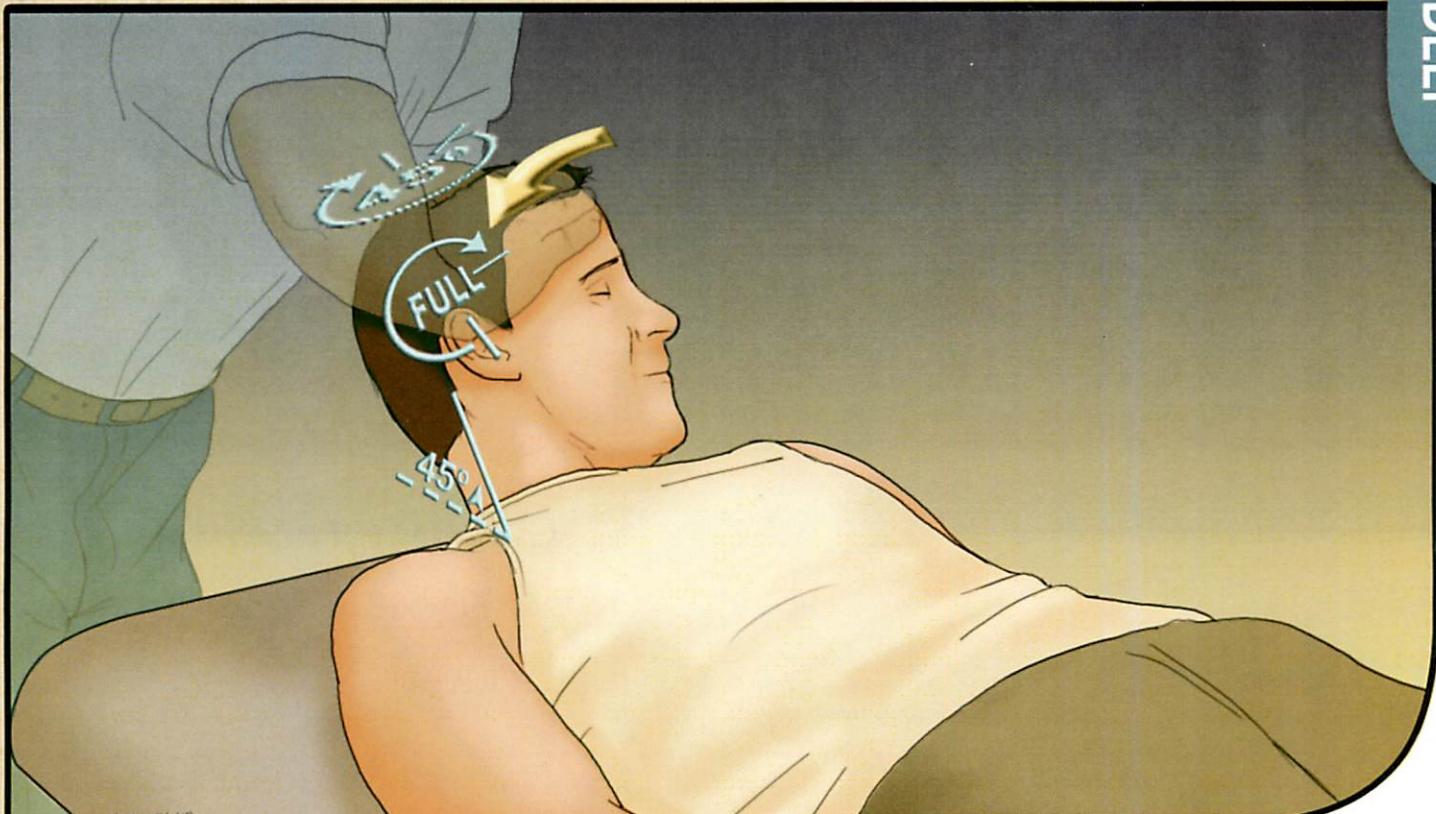
Branches of the cervical ventral rami of (C1 and C2).

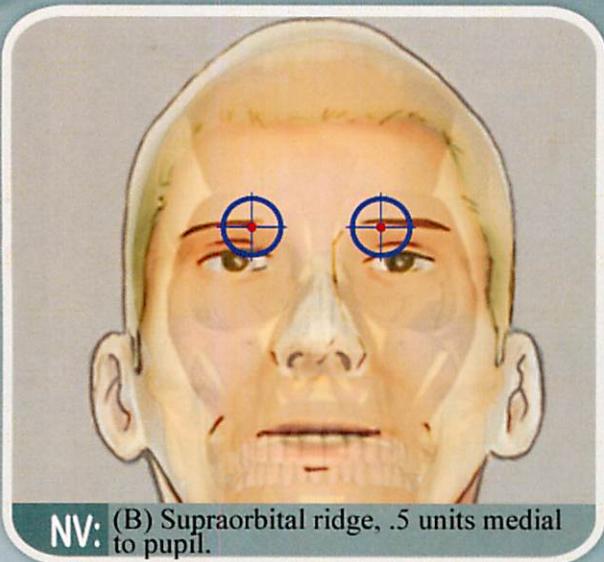
**TEST:**

PATIENT: Supine. Rotate head 45° ipsilateral. Full flexion of head on neck. Flex neck on trunk 45°.

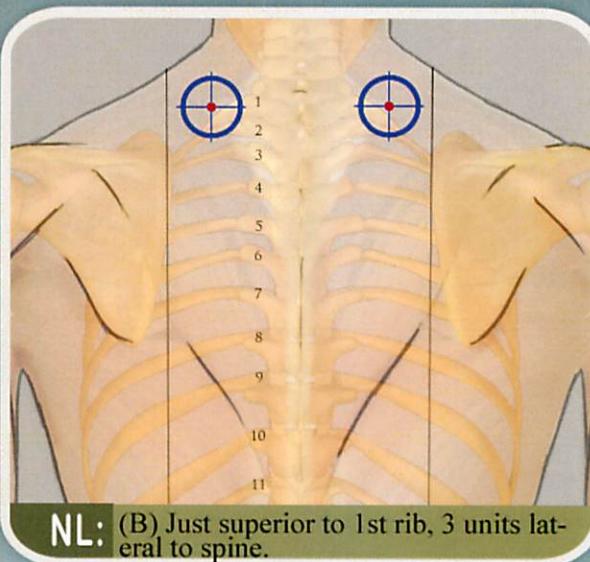


EXAMINER: Head of table. Bilateral contact on frontal and occiput. Extend head on neck through sagittal plane of body.

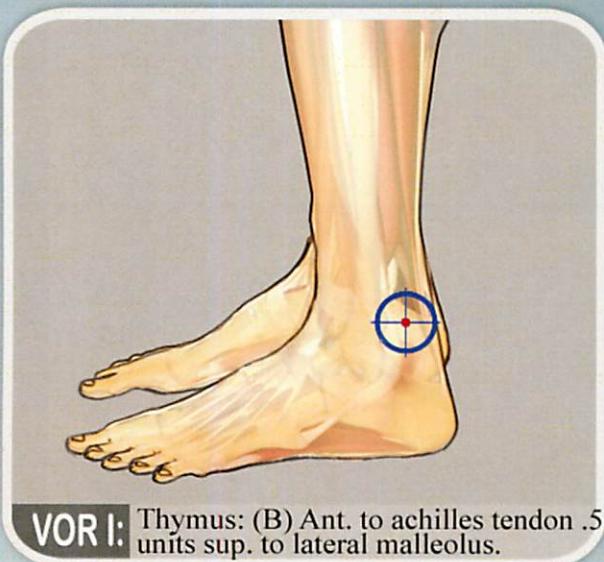




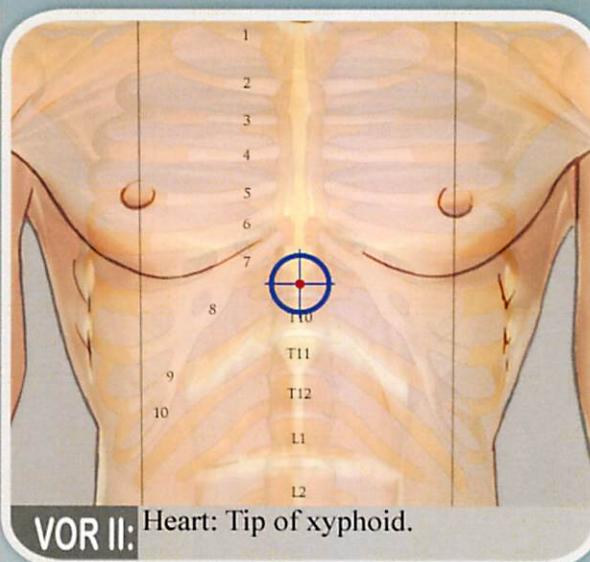
NV: (B) Supraorbital ridge, .5 units medial to pupil.



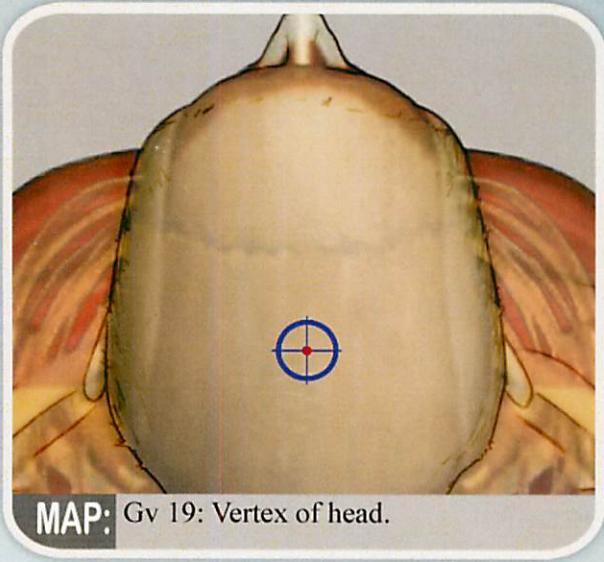
NL: (B) Just superior to 1st rib, 3 units lateral to spine.



VOR I: Thymus: (B) Ant. to achilles tendon .5 units sup. to lateral malleolus.



VOR II: Heart: Tip of xiphoid.



MAP: Gv 19: Vertex of head.

VL: T1 L

LB: T10 L

MM: C2

CRANIAL: LACRIMAL

FOOT: DISTAL PHALANX OF BIG TOE

NUTRIENT:

**ORIGIN:**

Superior margin of the transverse process of the atlas.

**INSERTION:**

Jugular process of the occipital bone.

**FUNCTION:**

Weakly assists with lateral flexion of the head. Probably is a postural muscle that helps monitor the head's position and movement.

**NERVE SUPPLY:**

Branches of the cervical ventral rami (C1 and C2).

**BLOOD SUPPLY:**

The ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery. It also receives blood from the muscular branches of the vertebral artery. It also receives small muscular branches from the occipital artery as it passes its lateral aspect.

**TEST:**

PATIENT: Supine. Full ipsilateral flexion of head on neck.

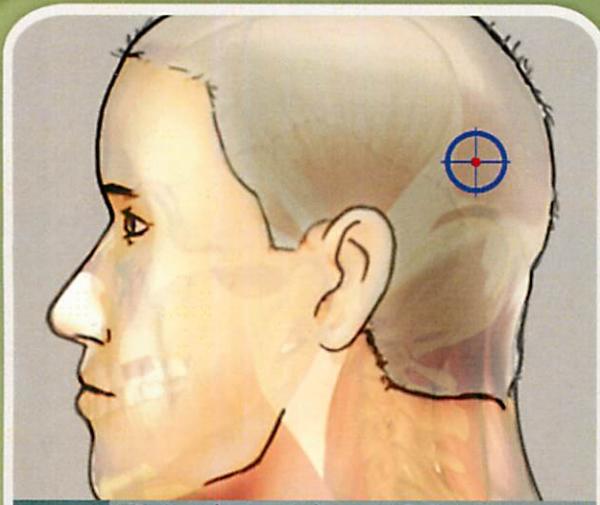


EXAMINER: Head of table. Bilateral contact on sides of head. Contralaterally flex head on neck through coronal plane of head.

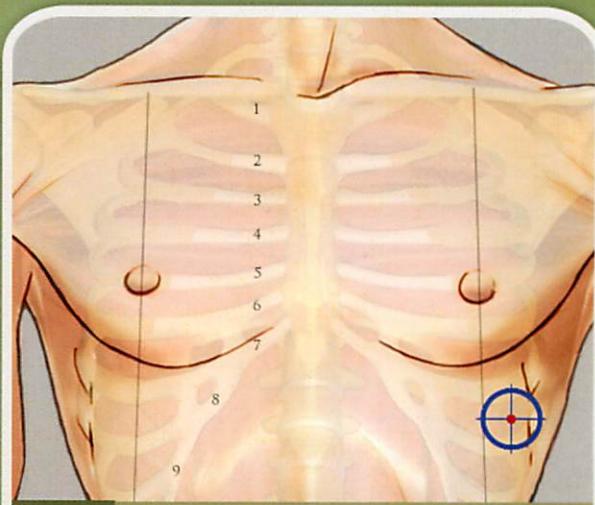


320 SPLENIUS CAPITIS OCCIPITAL:

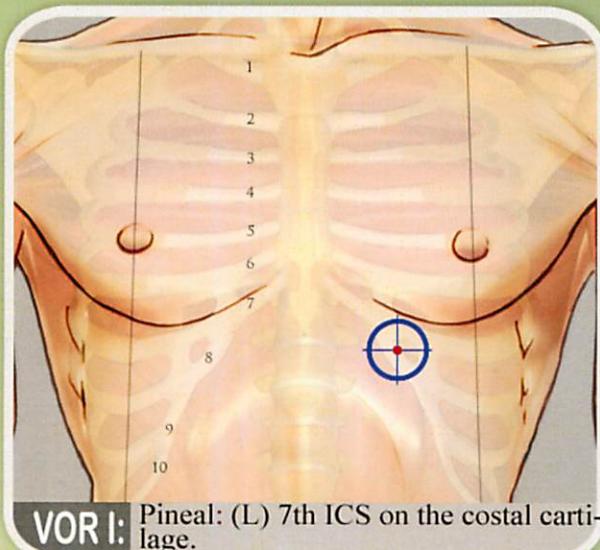
POSTERIOR NECK



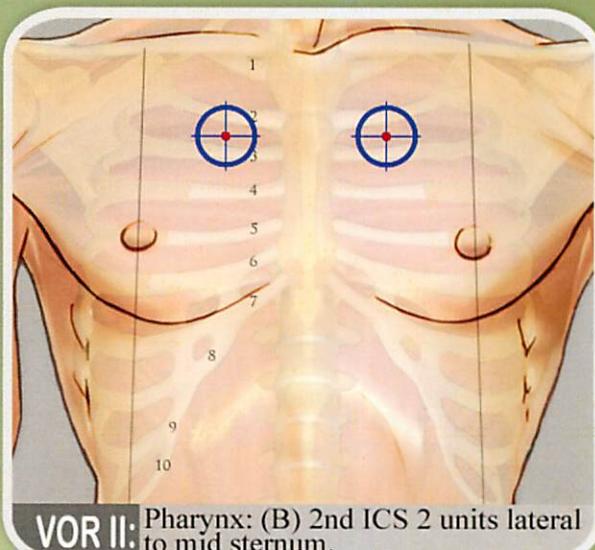
NV: (B) 2 units superior and 2.5 units posterior to EAM.



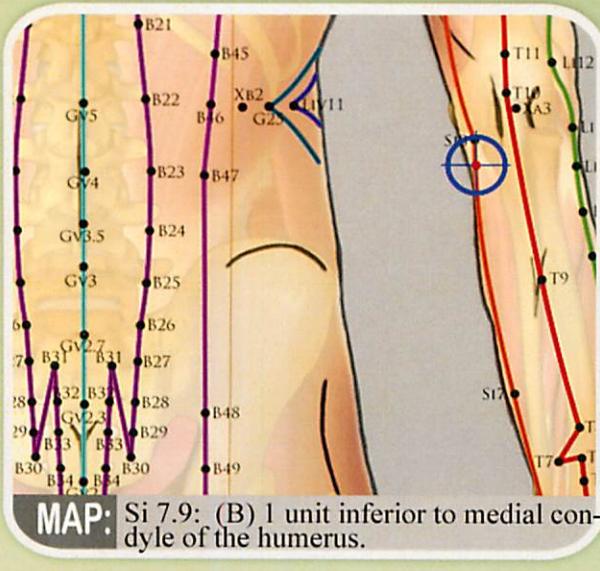
NL: (L) 7th ICS 1 unit lateral to mid-clavicular line.



VOR I: Pineal: (L) 7th ICS on the costal cartilage.



VOR II: Pharynx: (B) 2nd ICS 2 units lateral to mid sternum.



MAP: Si 7.9: (B) 1 unit inferior to medial condyle of the humerus.

VL: C7 R

LB: T11 R

MM: C2

CRANIAL: TEMPORAL

FOOT: 1ST METATARSAL

NUTRIENT: VITAMIN C

**ORIGIN:**

Lower half of ligamentum nuchae (C4 to C6) and spinous processes of C7-T4.

**INSERTION:**

Medial side of mastoid process and rough surface adjoining occipital bone.

**FUNCTION:**

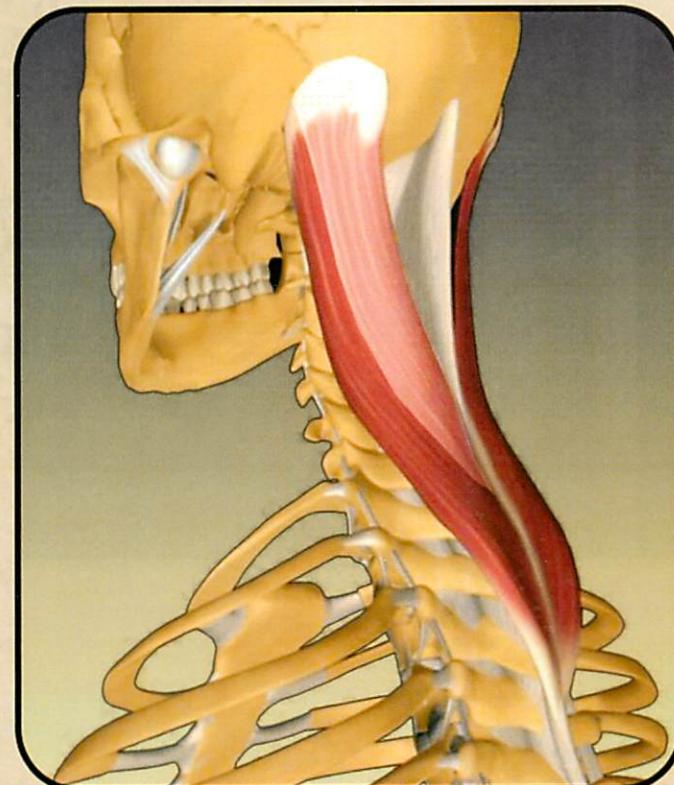
Bilaterally they extend the head and neck; unilaterally they laterally flex the head and neck and rotate the head to the same side.

**NERVE SUPPLY:**

Dorsal rami of cervical spinal nerves (C3, 4, 5, and 6).

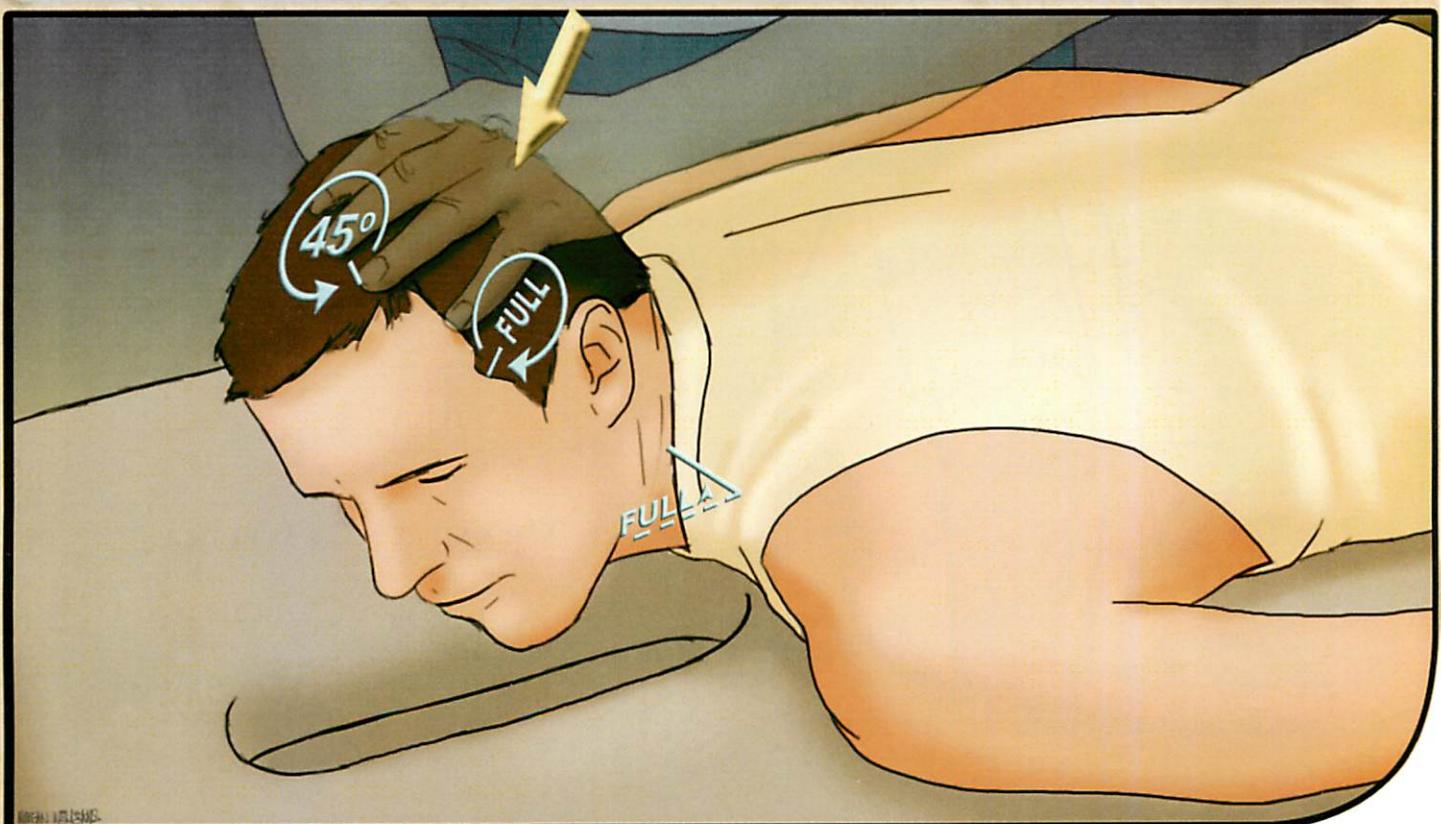
**BLOOD SUPPLY:**

Muscular branches of the occipital artery from the external carotid artery.

**TEST:**

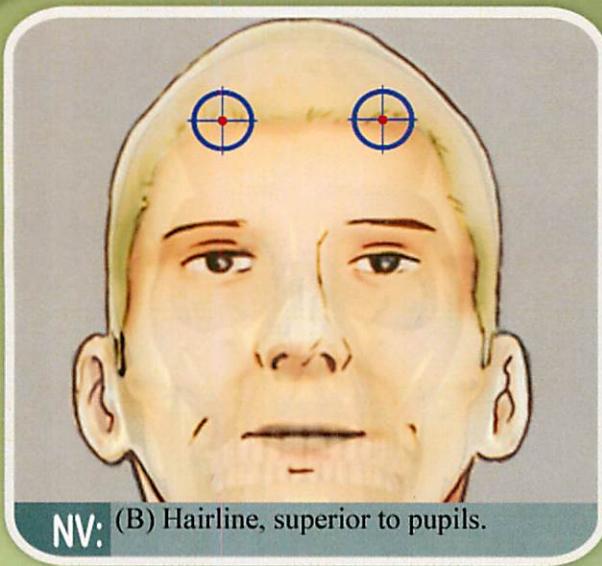
PATIENT: Supine. rotate head 45° ipsilateral. Full extension of head on neck. Full extension of neck on trunk.

EXAMINER: Side of table. Contact ipsilateral parietal. Flex head on neck through sagittal plane of body.

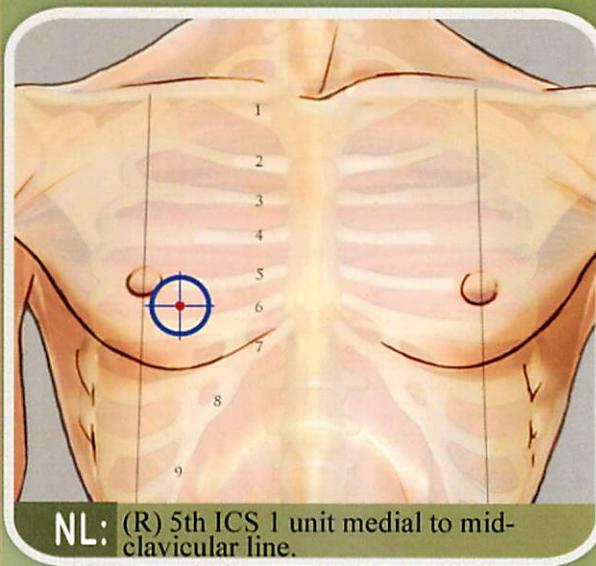


POSTERIOR NECK

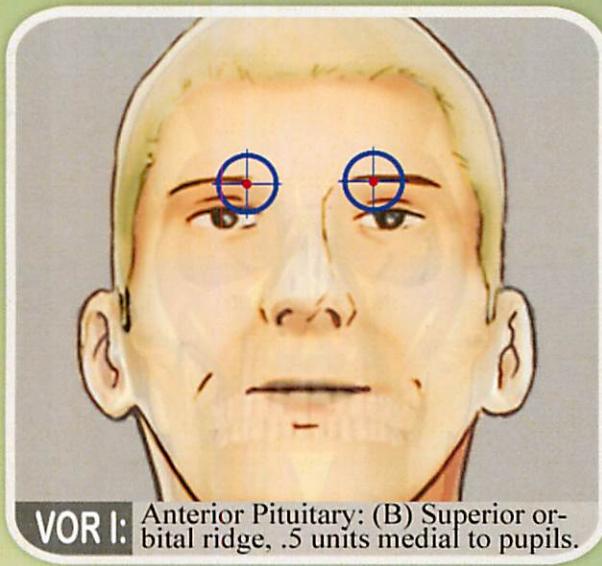
322 SPLENIUS CAPITIS MASTOID:



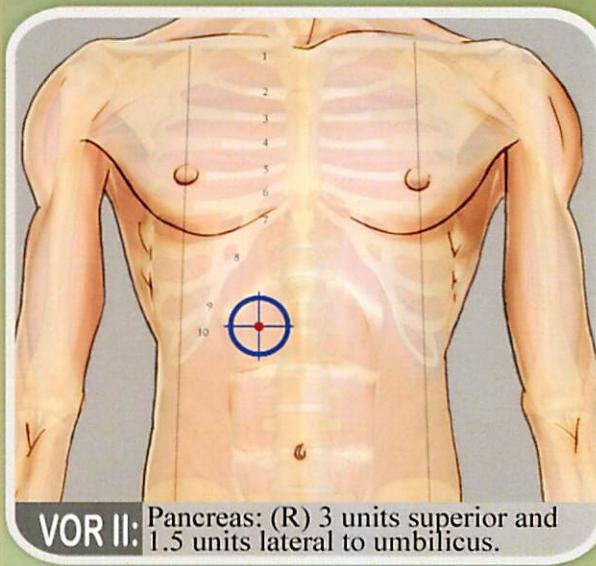
NV: (B) Hairline, superior to pupils.



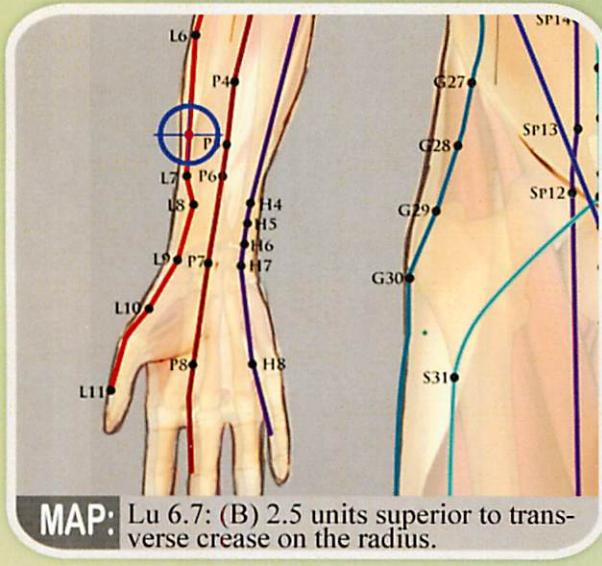
NL: (R) 5th ICS 1 unit medial to mid-clavicular line.



VOR I: Anterior Pituitary: (B) Superior orbital ridge, .5 units medial to pupils.



VOR II: Pancreas: (R) 3 units superior and 1.5 units lateral to umbilicus.



MAP: Lu 6.7: (B) 2.5 units superior to transverse crease on the radius.

VL: C3 R
LB: L3 R
MM: C2

CRANIAL: TEMPORAL

FOOT: CUBOID

NUTRIENT: POTASSIUM CHLORIDE



ORIGIN:
Spinous processes of T3-T4.



INSERTION:
Lateral side of mastoid process and rough surface adjoining occipital bone.



FUNCTION:
Bilaterally they extend the head and neck; unilaterally they laterally flex the head and neck and rotate the head to the same side.



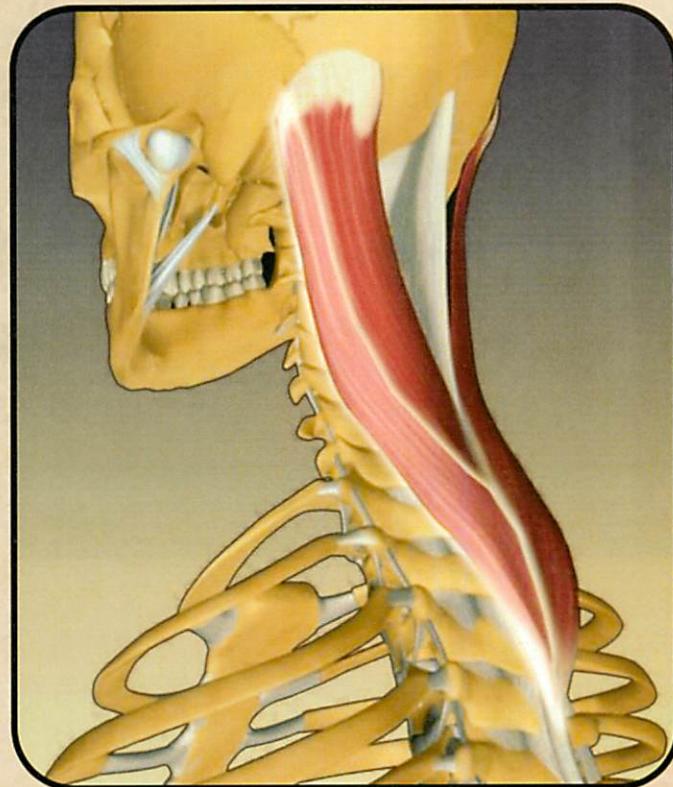
NERVE SUPPLY:
Dorsal rami of cervical spinal nerves (C3, 4, 5, and 6).



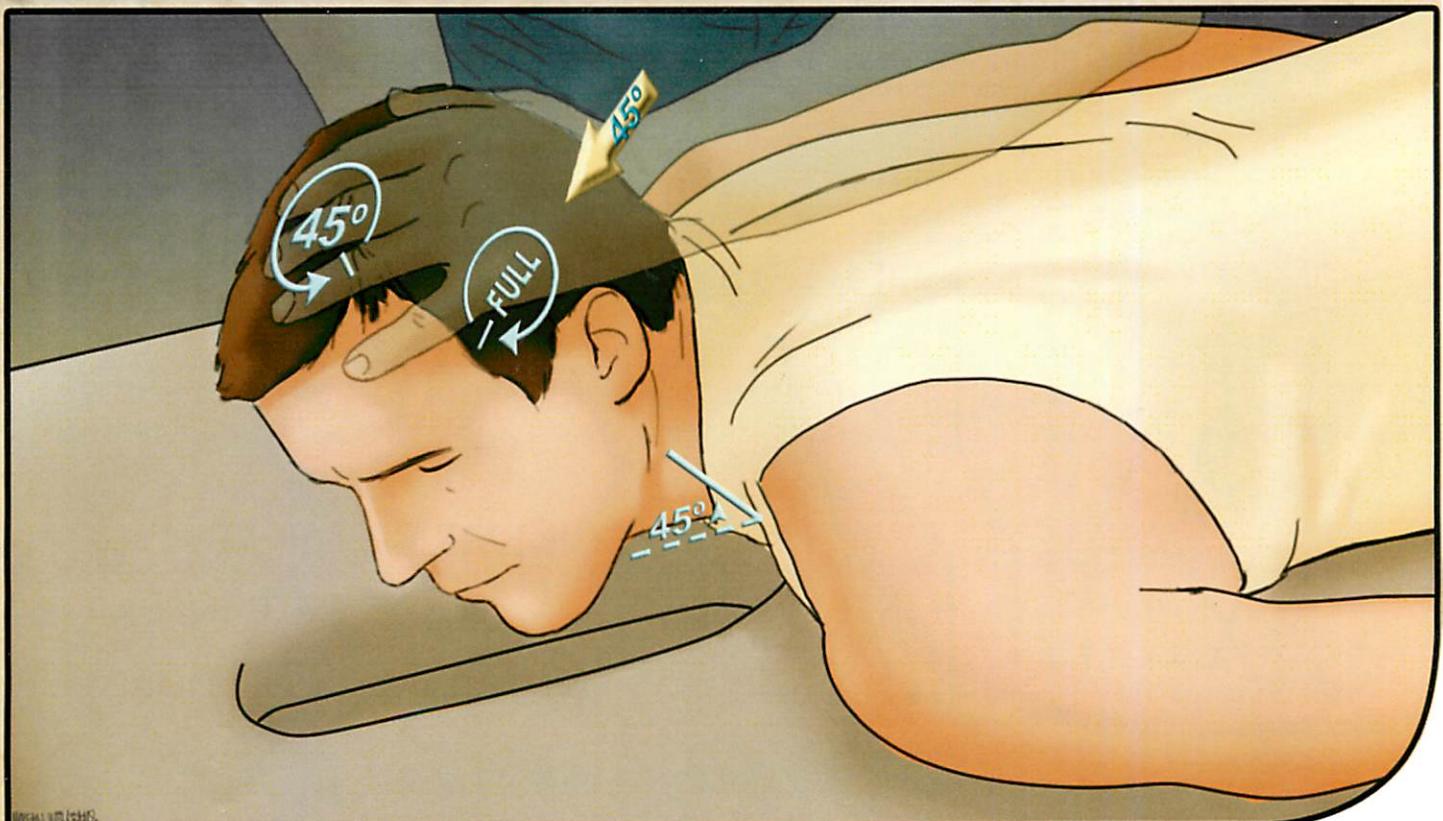
BLOOD SUPPLY:
Muscular branches of the occipital artery from the external carotid artery.



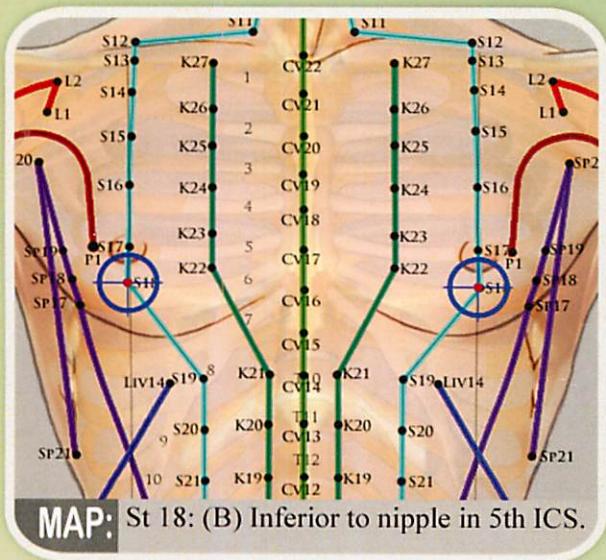
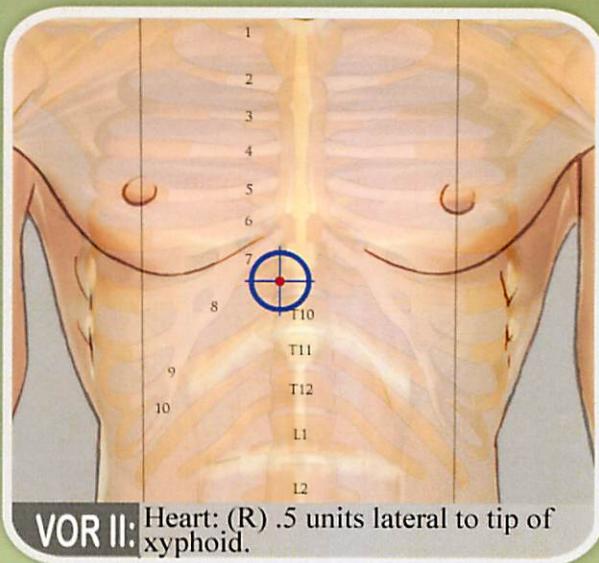
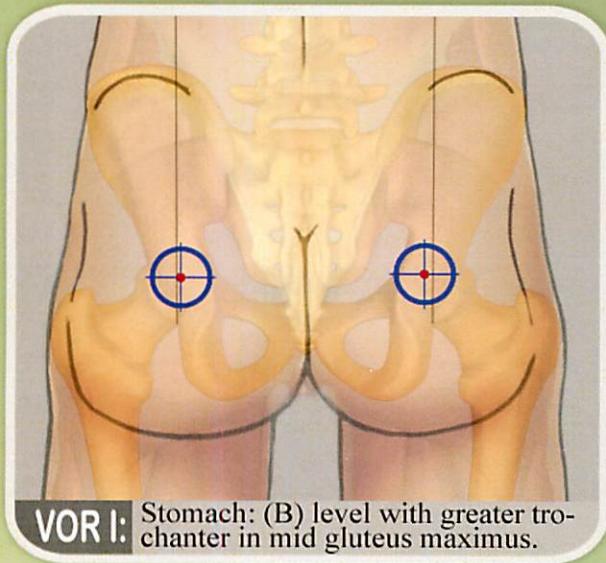
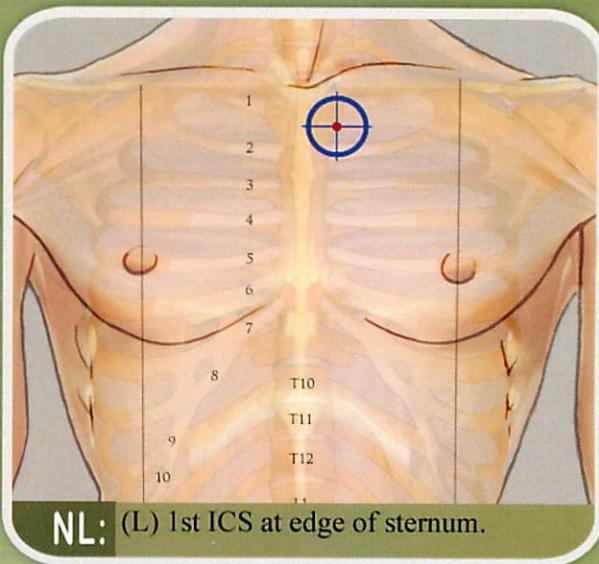
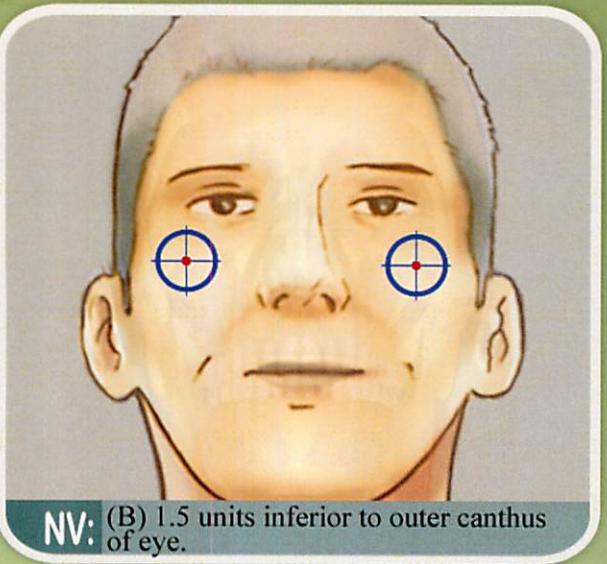
TEST:
PATIENT: Supine. rotate head 45° ipsilateral. Full extension of head on neck. Full extension of neck on trunk.



EXAMINER: Side of table. Contact ipsilateral parietal. Flex head on neck 45° obliquely to the contralateral.



POSTERIOR NECK



VL: T1 R
LB: T10
MM: C6

CRANIAL: PARIETAL

FOOT: CALCANEUS

NUTRIENT: PHOSPHORUS



ORIGIN:
Spinous processes of T3-T6.



INSERTION:
Posterior tubercles of transverse processes of C1-C3.



FUNCTION:
Bilaterally they extend the neck; unilaterally they laterally flex the neck.



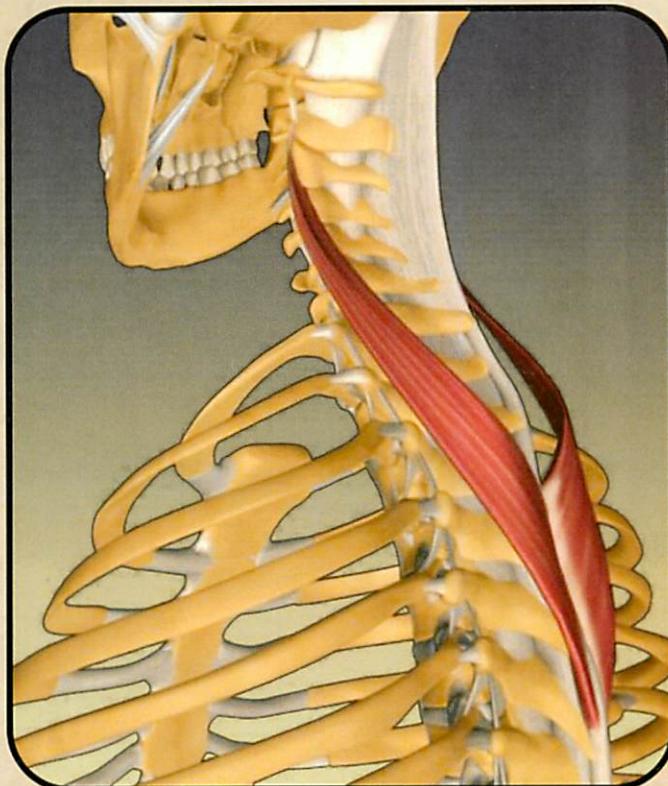
NERVE SUPPLY:
Dorsal rami of cervical spinal nerves (C5, 6, 7, and 8).



BLOOD SUPPLY:
Muscular branches of the occipital artery from the external carotid artery. Dorsal branches of the posterior intercostal arteries from the thoracic aorta.



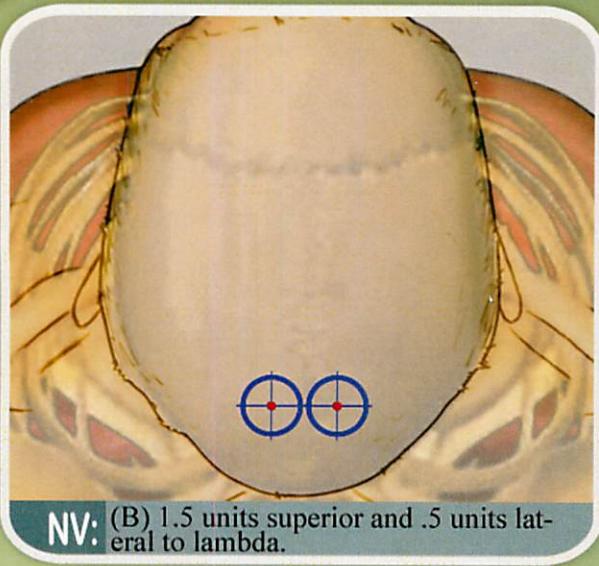
TEST:
PATIENT: Supine. rotate head 45° ipsilateral. Full flexion of head on neck. Full extension of neck on trunk.



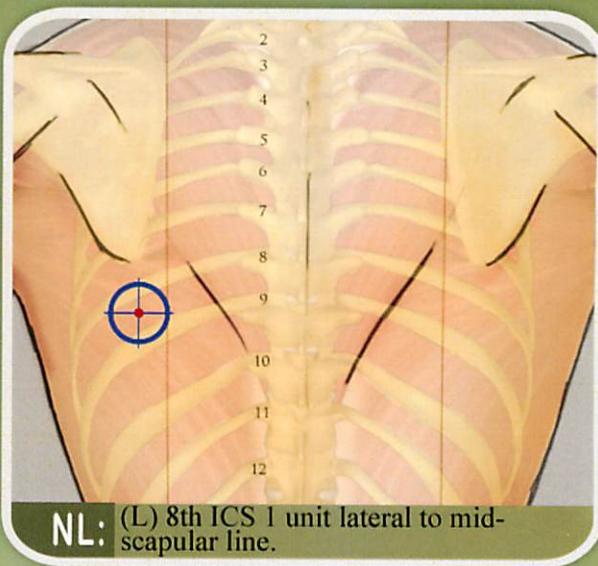
EXAMINER: Side of table. Contact ipsilateral parietal. Flex head on neck through sagittal plane of body.



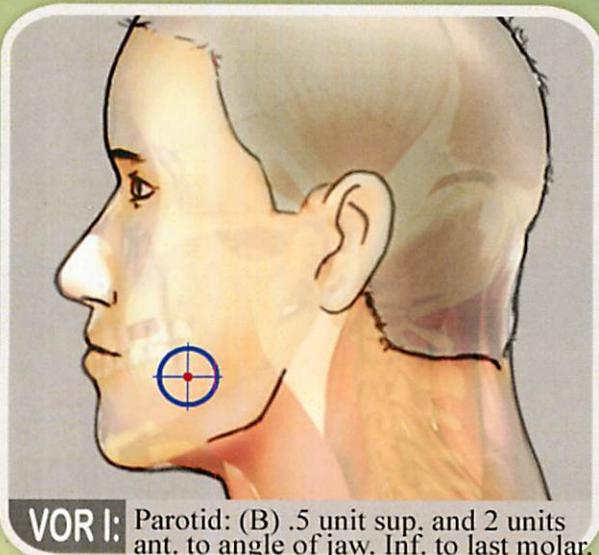
328 LONGISSIMUS CERVICIS:



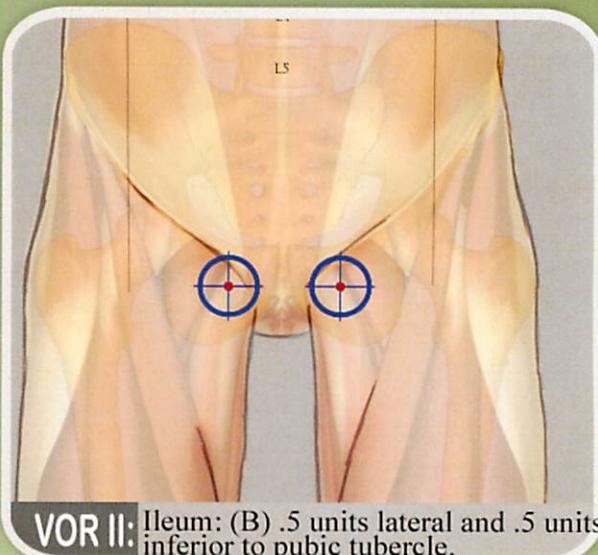
NV: (B) 1.5 units superior and .5 units lateral to lambda.



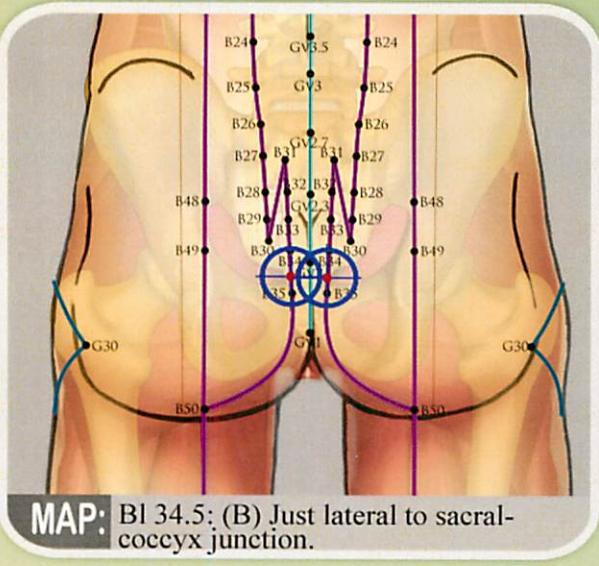
NL: (L) 8th ICS 1 unit lateral to mid-scapular line.



VOR I: Parotid: (B) .5 unit sup. and 2 units ant. to angle of jaw. Inf. to last molar.



VOR II: Ileum: (B) .5 units lateral and .5 units inferior to pubic tubercle.



MAP: BI 34.5; (B) Just lateral to sacral-coccyx junction.

VL: C5 L

LB: L1 L

MM: T3

CRANIAL: OCCIPUT

FOOT: 3RD METATARSAL

NUTRIENT: B1 THIAMINE

**ORIGIN:**

Posterior surface of transverse processes of T1 to T5.

**INSERTION:**

Posterior tubercles of the transverse processes of C2 to C6.

**FUNCTION:**

Extend the vertebral column.

**NERVE SUPPLY:**

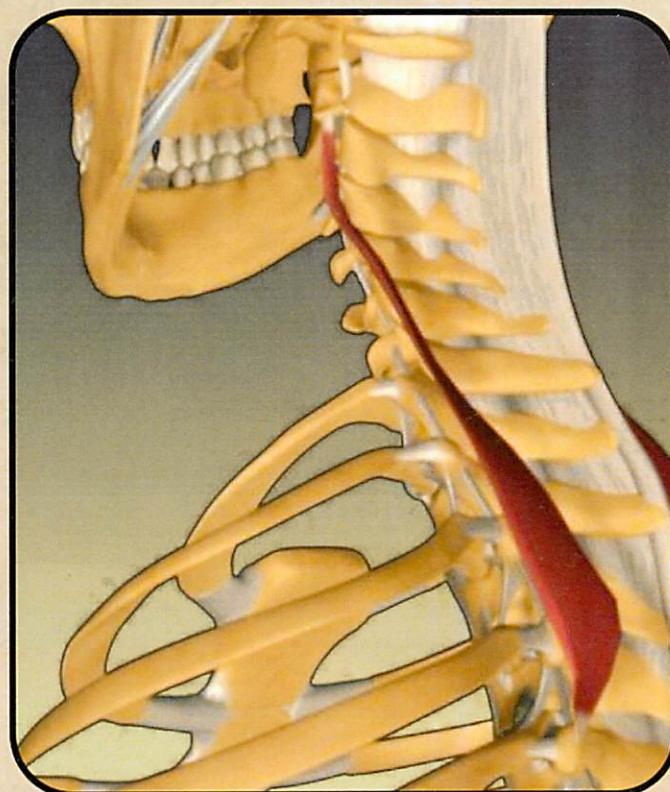
Dorsal rami of cervical and thoracic spinal nerves (C6 to T4).

**BLOOD SUPPLY:**

Dorsal branches of the posterior intercostal arteries from the thoracic aorta.

**TEST:**

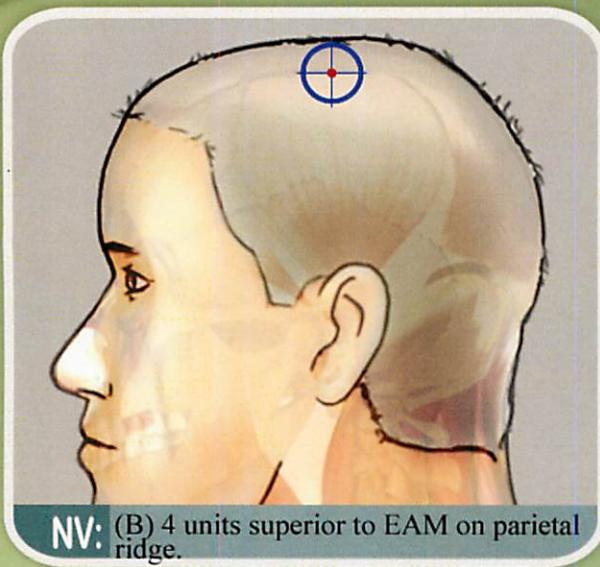
PATIENT: Prone. Full ipsilateral rotation of head. Full flexion of head on neck, full extension of neck on Trunk.



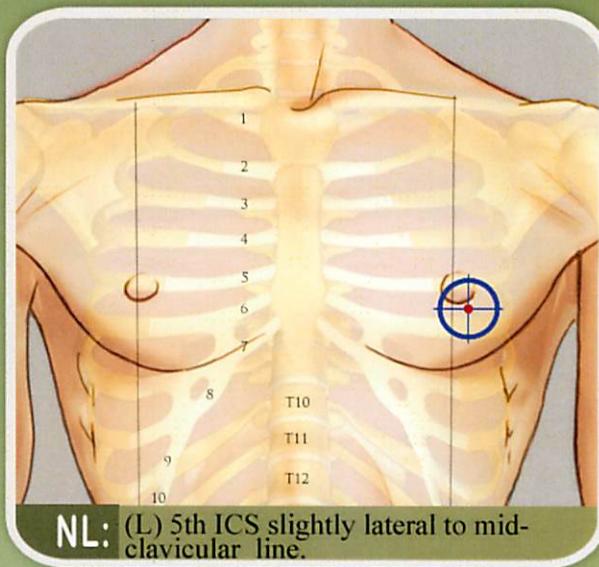
EXAMINER: Side of table. Contact parietal bone. Flex neck through sagittal plane of body.



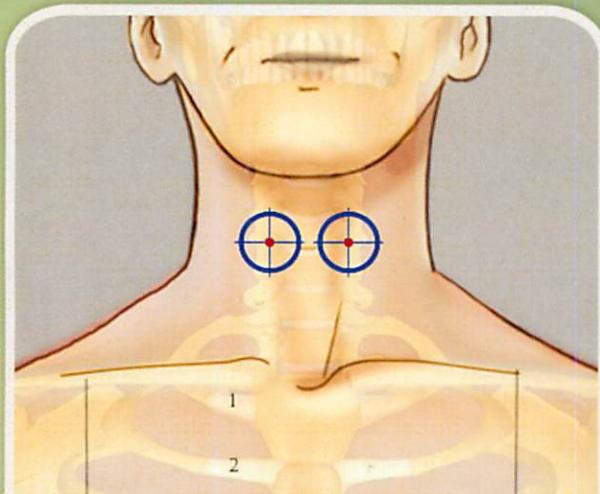
POSTERIOR NECK



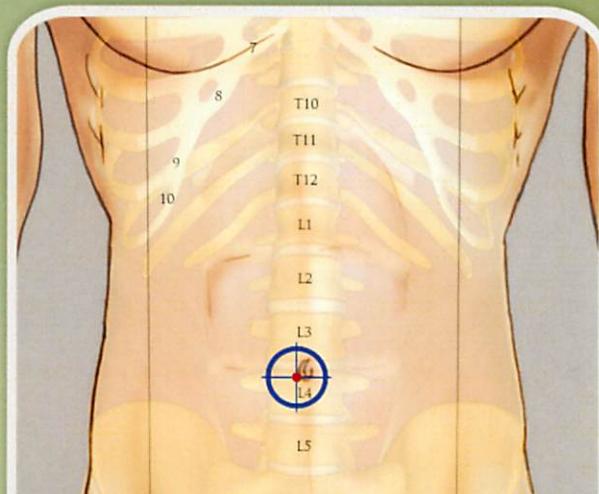
NV: (B) 4 units superior to EAM on parietal ridge.



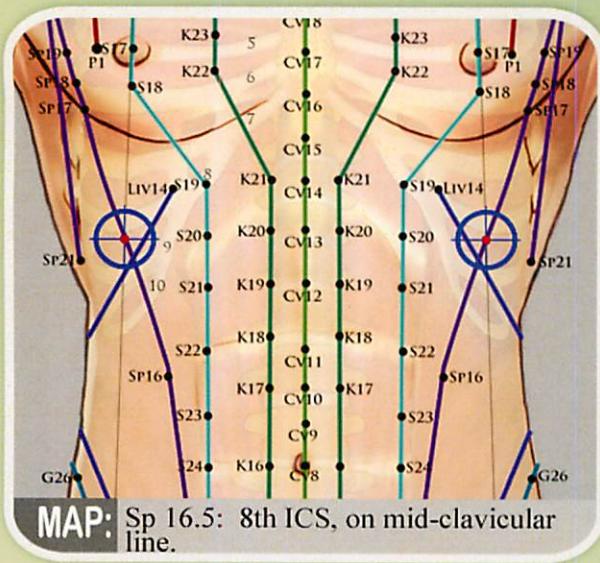
NL: (L) 5th ICS slightly lateral to mid-clavicular line.



VOR I: Kidney: (B) Anterior lateral margin of C5 body.



VOR II: Parathyroid: (R) 8 o'clock on the umbilicus.



MAP: Sp 16.5: 8th ICS, on mid-clavicular line.

VL: C2 R

LB: L4 R

MM: C6

CRANIAL: PARIETAL

FOOT: CUBOID

NUTRIENT: MANGANESE

**ORIGIN:**

The articular tubercles of C4 to C7 and posterior surface of transverse processes of T1 to T5.

**INSERTION:**

Posterior margin of mastoid process and adjacent occipital bone.

**FUNCTION:**

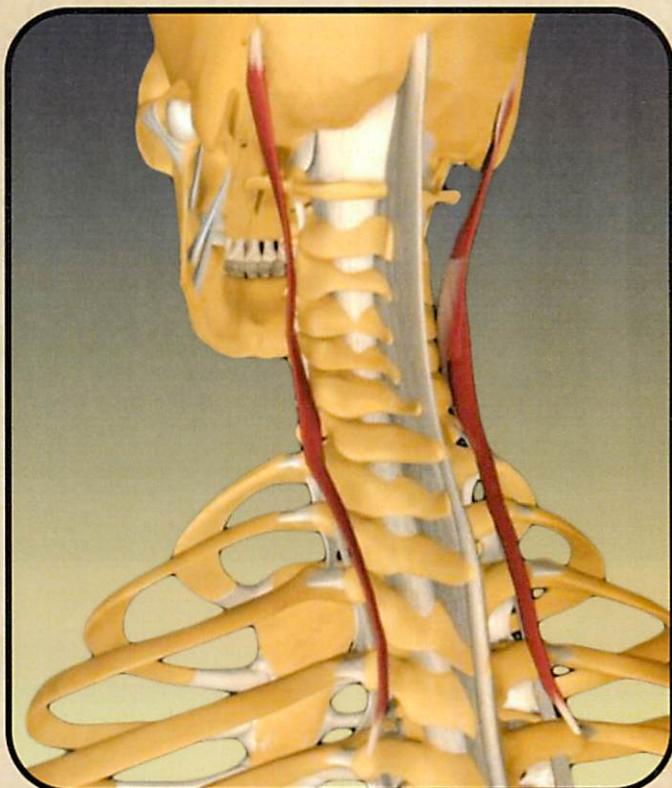
Extends the head and rotates the head to the same side.

**NERVE SUPPLY:**

Dorsal rami of cervical and thoracic spinal nerves (C6 to T4).

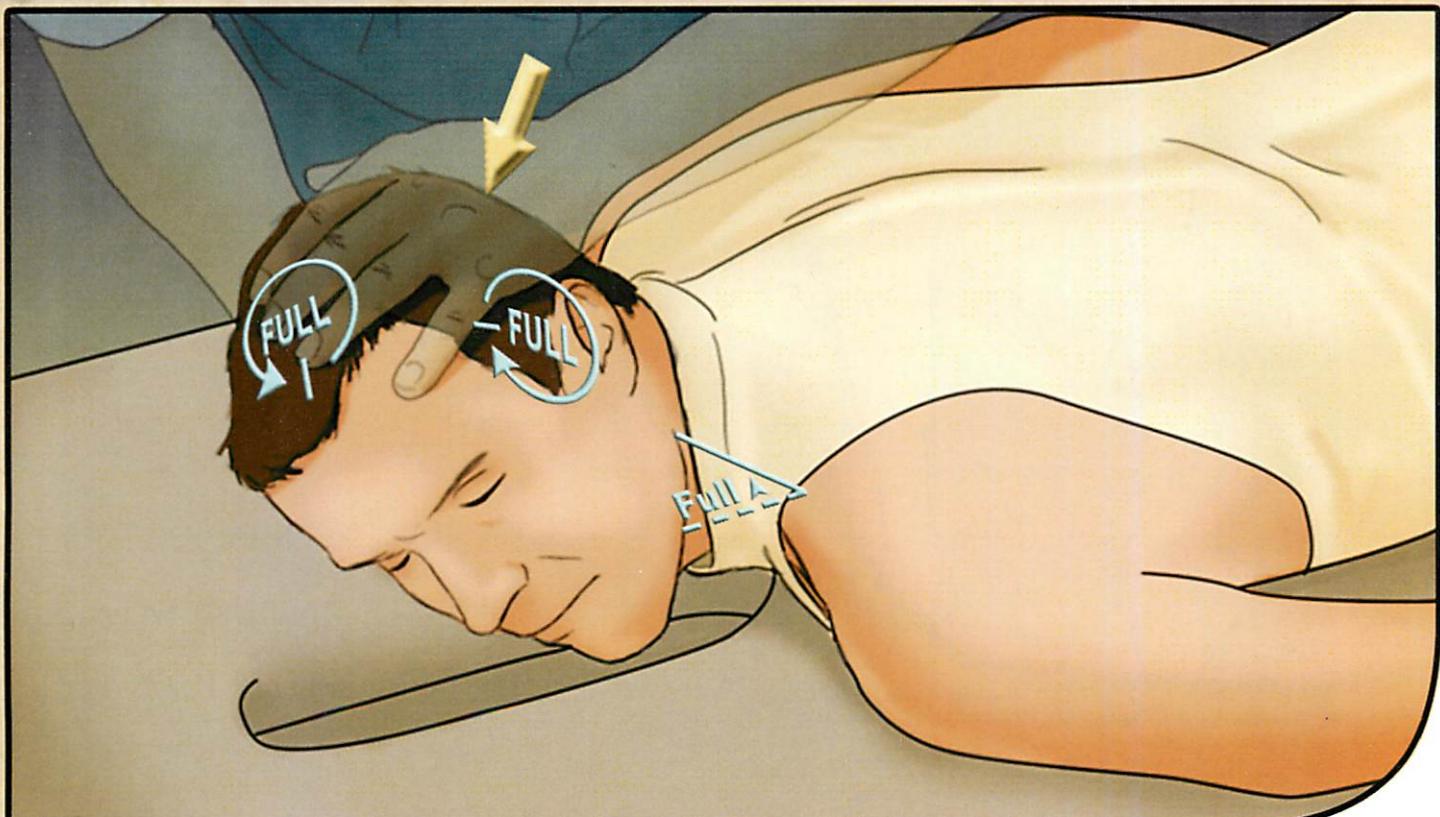
**BLOOD SUPPLY:**

Muscular branches of the occipital artery from the external carotid artery.

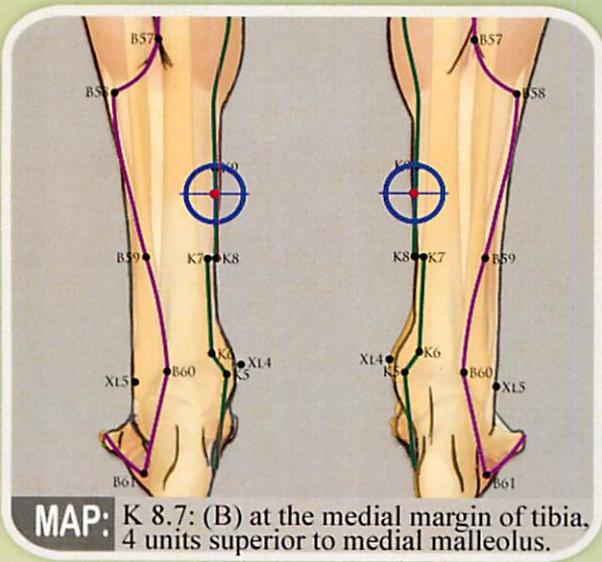
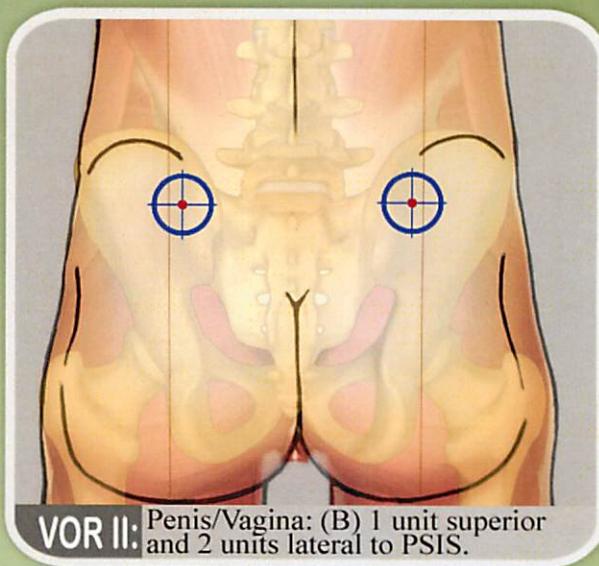
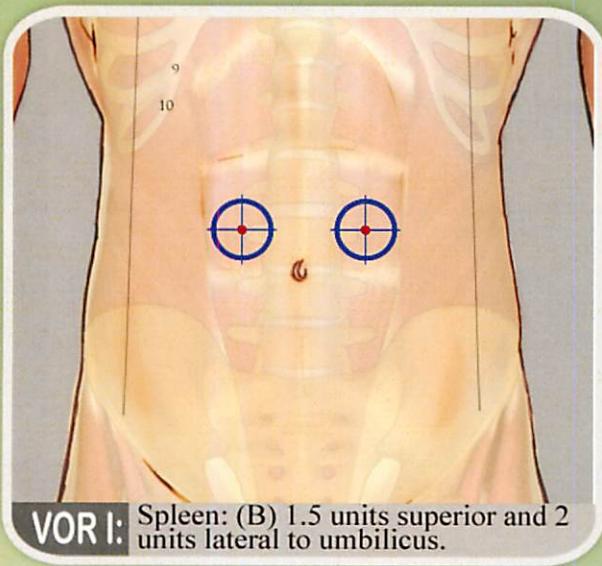
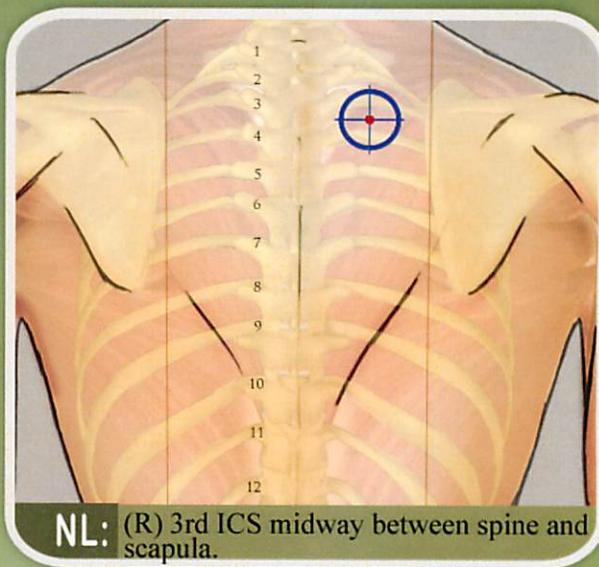
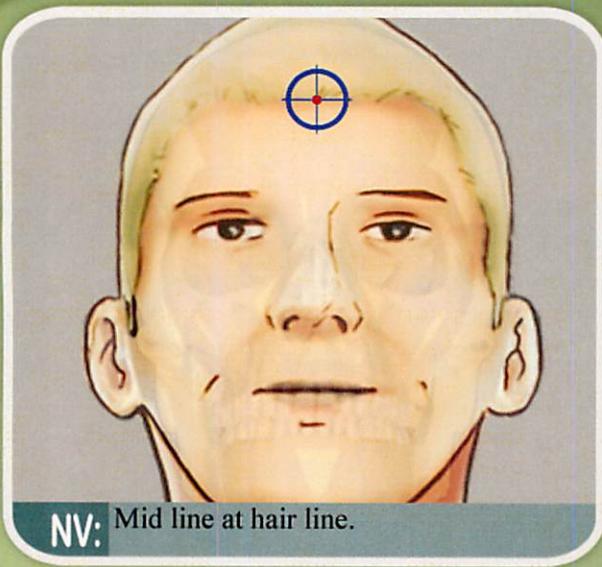
**TEST:**

PATIENT: Prone. Full ipsilateral rotation of head. Full extension of head on neck, full extension of neck on Trunk.

EXAMINER: Side of table. Contact parietal bone. Flex neck through sagittal plane of body.



332 SEMISPINALIS CAPITIS:



VL: T4 R
LB: T7 R
MM: C3

CRANIAL: TEMPORAL

FOOT: 2ND METATARSAL

NUTRIENT: POTASSIUM

**ORIGIN:**

Articular tubercles of C4 to C6, and the tips of transverse processes of C7 to T6.

**INSERTION:**

Medial part of the area between the superior and inferior nuchal lines on the occipital bone.

**FUNCTION:**

Extends the head; weak rotation of head to opposite side.

**NERVE SUPPLY:**

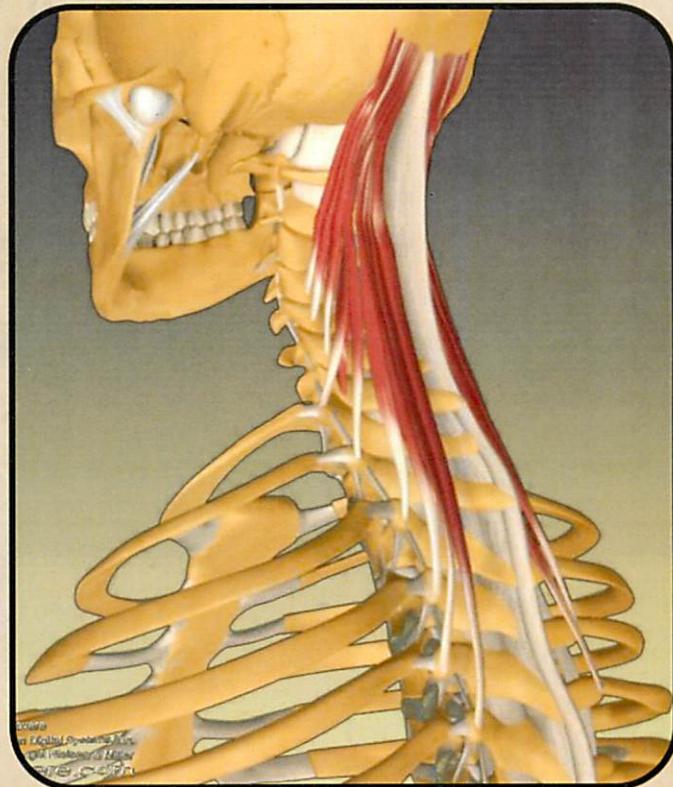
Dorsal rami of cervical and thoracic spinal nerves (C2 to T6).

**BLOOD SUPPLY:**

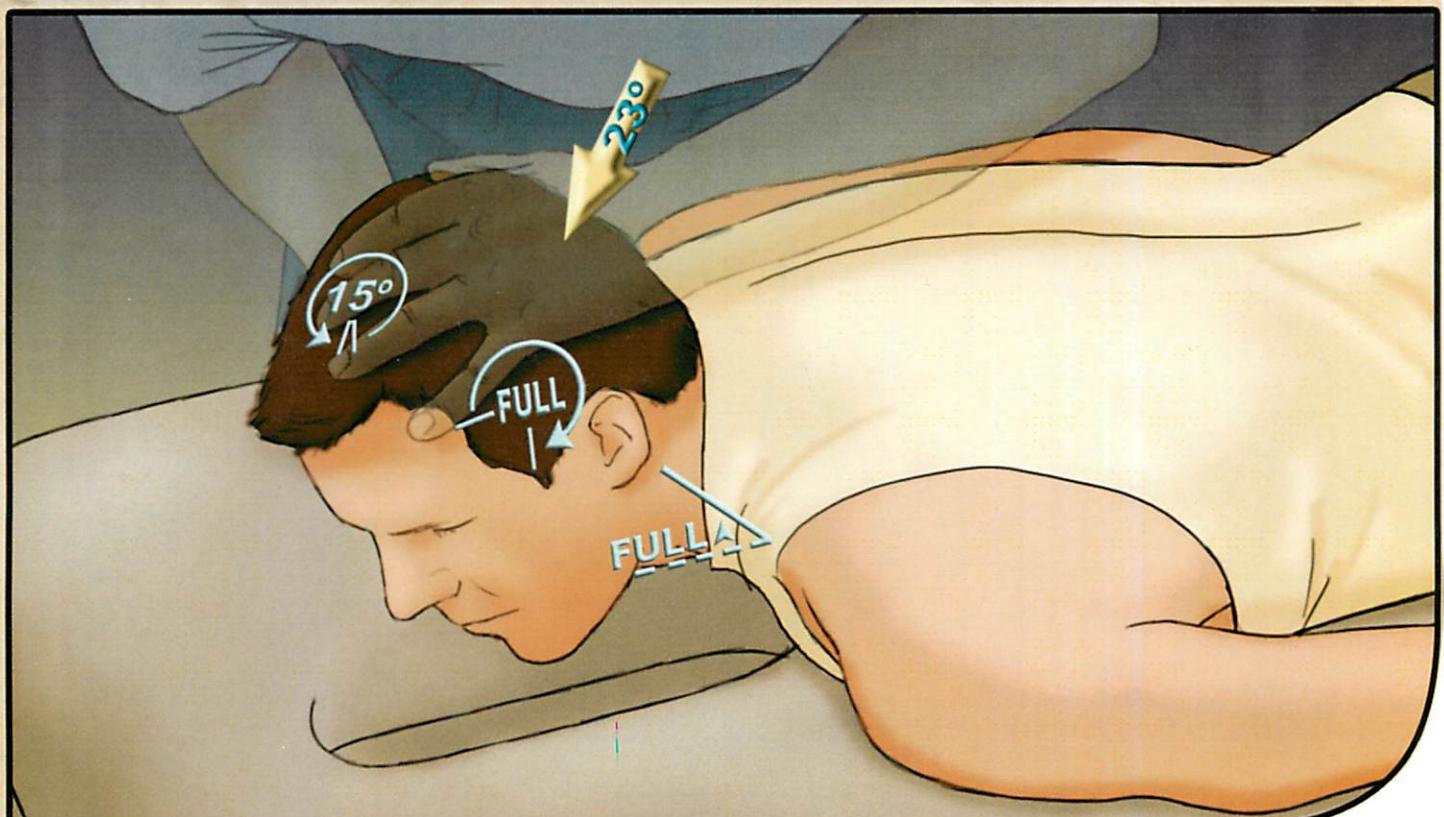
From the deep cervical artery, which arises from the costocervical trunk of the subclavian artery and the descending branch of the occipital artery, which forms an anastomosis with the deep cervical artery.

**TEST:**

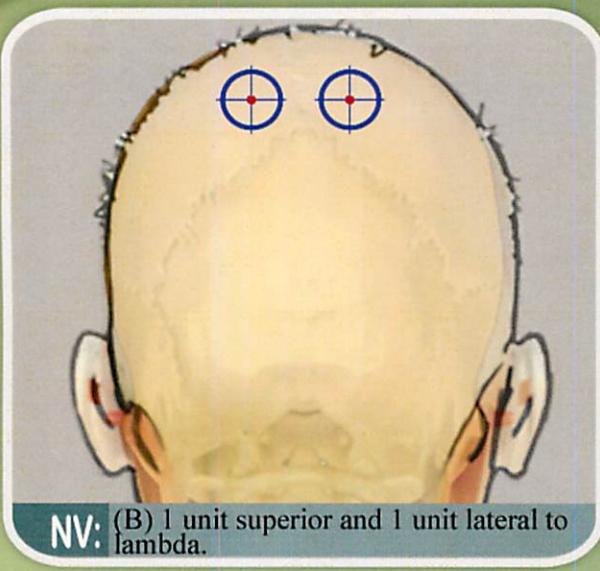
PATIENT: Supine. Rotate head 15° ipsilateral. Full extension of head on neck. Full extension of neck on trunk.



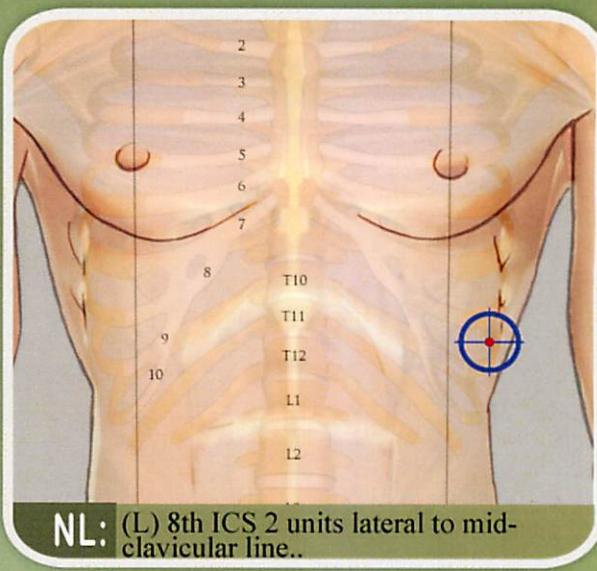
EXAMINER: Side of table. Contact ipsilateral parietal. Flex head on neck 23° oblique to contralateral.



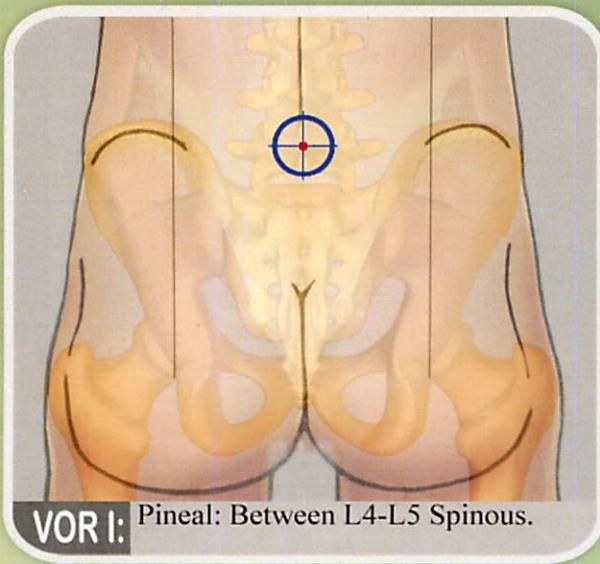
POSTERIOR NECK



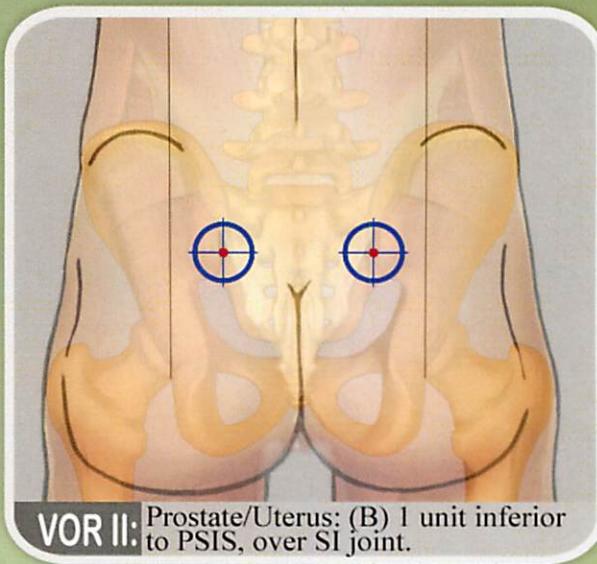
NV: (B) 1 unit superior and 1 unit lateral to lambda.



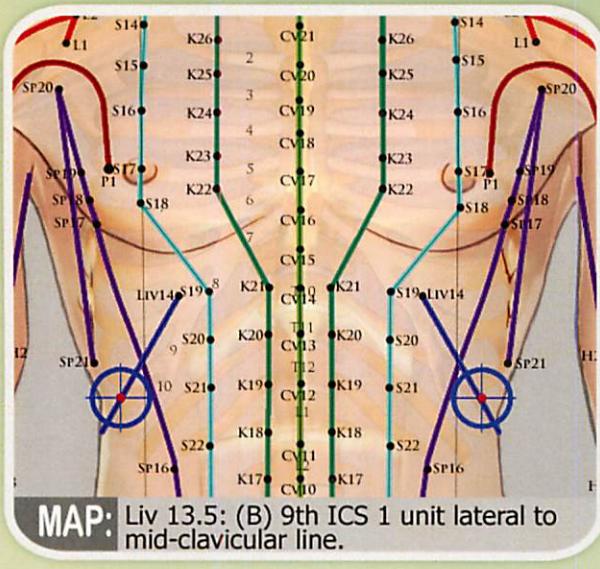
NL: (L) 8th ICS 2 units lateral to mid-clavicular line..



VOR I: Pineal: Between L4-L5 Spinous.



VOR II: Prostate/Uterus: (B) 1 unit inferior to PSIS, over SI joint.



MAP: Liv 13.5: (B) 9th ICS 1 unit lateral to mid-clavicular line.

VL: T12 R

LB: C6 R

MM: T2

CRANIAL: OCCIPUT

FOOT: 3RD METATARSAL

NUTRIENT: FENGRE (SP)

**ORIGIN:**

Transverse processes of T1 to T6.

**INSERTION:**

Sides of spinous processes of C2 to C5.

**FUNCTION:**

Extends the cervical vertebral column and rotates it to the opposite side.

**NERVE SUPPLY:**

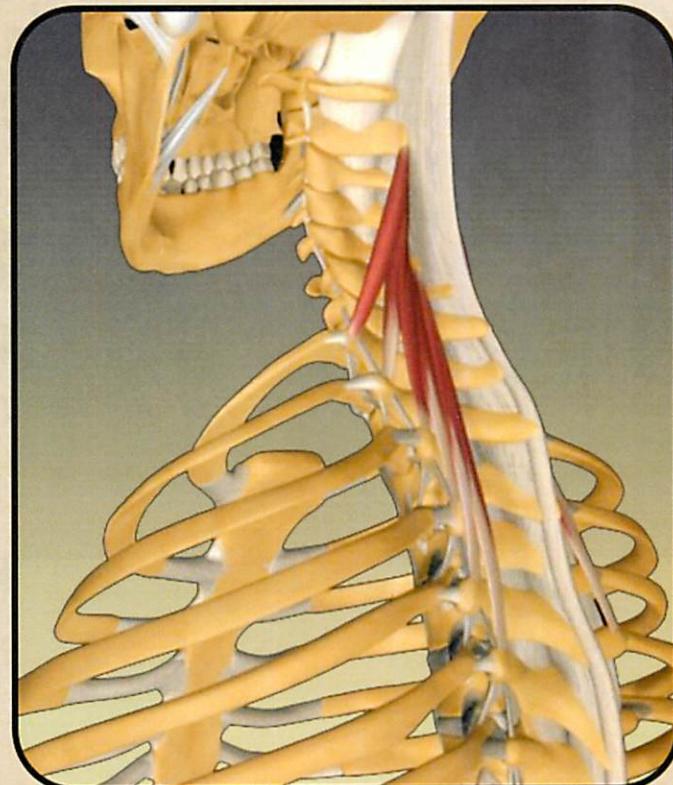
Dorsal rami of cervical and thoracic spinal nerves (C3 to T5).

**BLOOD SUPPLY:**

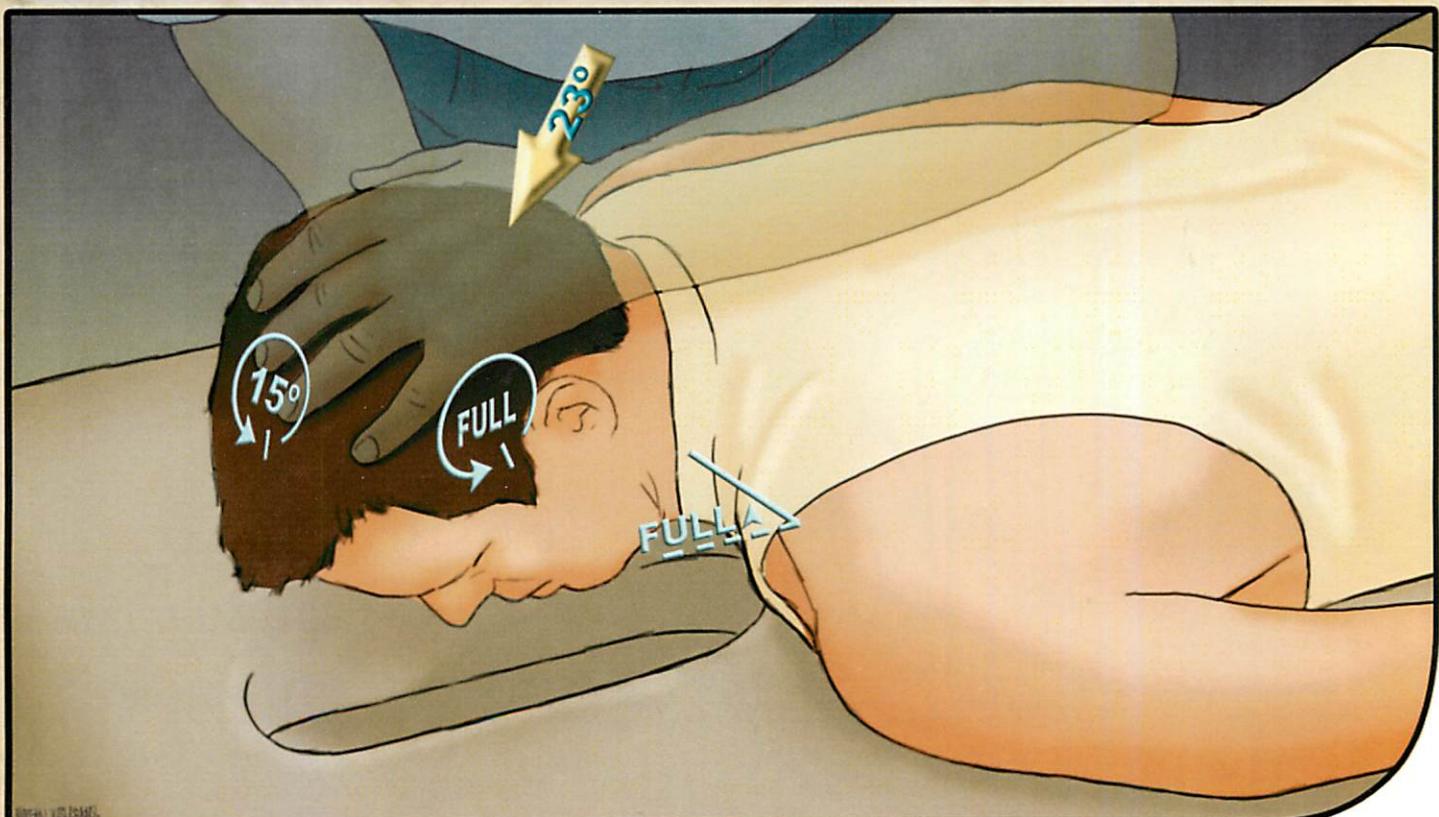
From the deep cervical artery, which arises from the costocervical trunk of the subclavian artery and the descending branch of the occipital artery, which forms an anastomosis with the deep cervical artery. Dorsal branches of the posterior intercostal arteries from the thoracic aorta.

**TEST:**

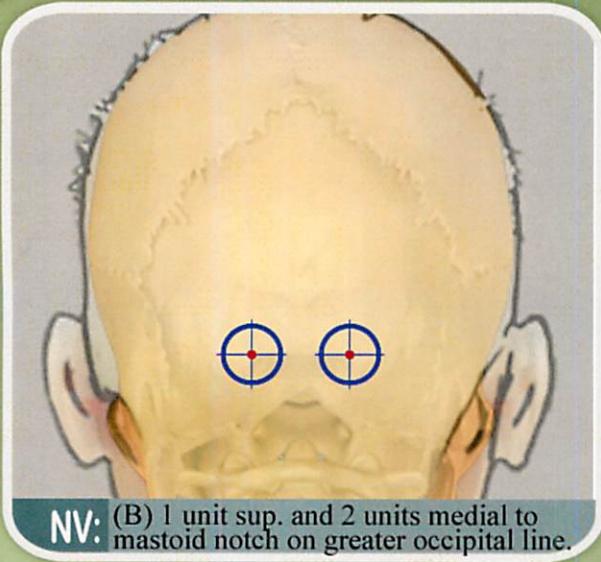
PATIENT: Supine. rotate head 15° ipsilateral. Full flexions of head on neck. Full extension of neck on trunk.



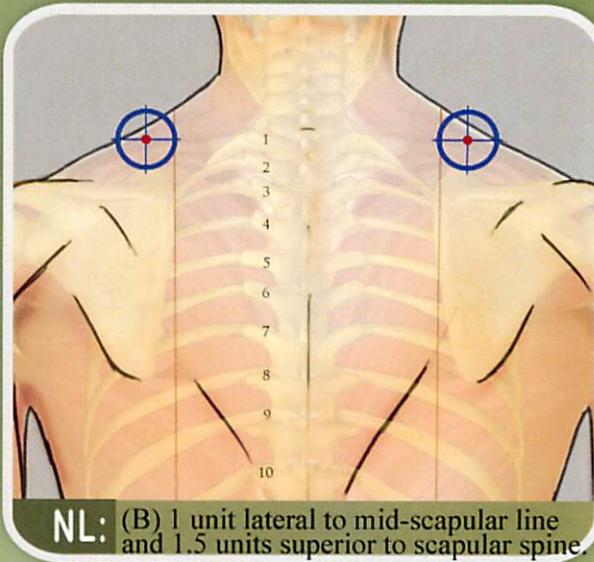
EXAMINER: Side of table. Contact ipsilateral parietal. Flex head on neck 23° oblique to contralateral.



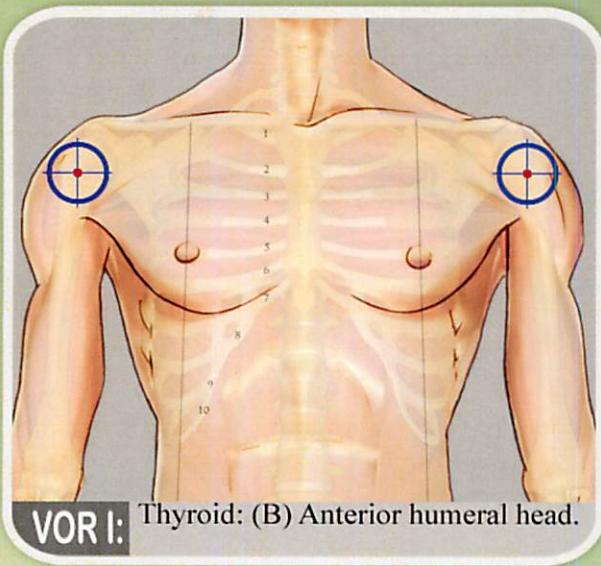
POSTERIOR NECK



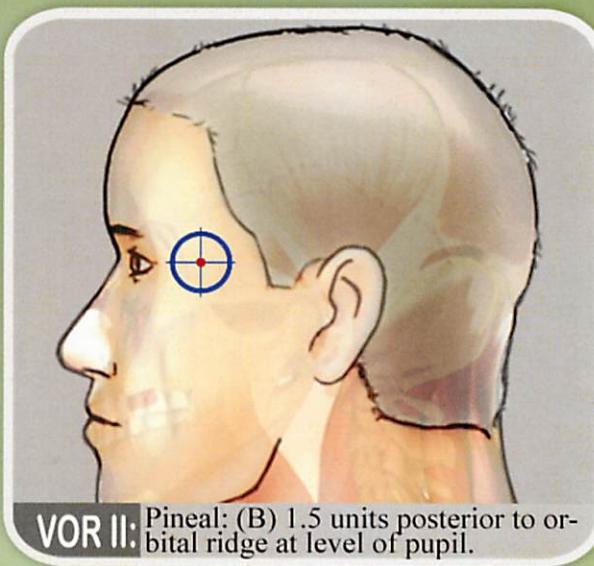
NV: (B) 1 unit sup. and 2 units medial to mastoid notch on greater occipital line.



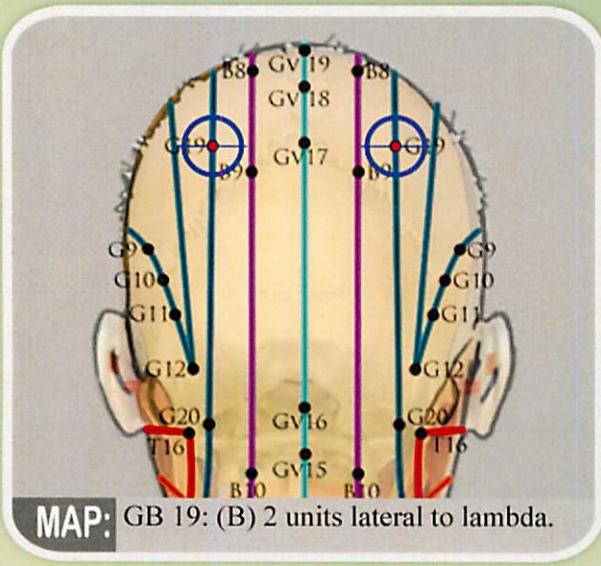
NL: (B) 1 unit lateral to mid-scapular line and 1.5 units superior to scapular spine.



VOR I: Thyroid: (B) Anterior humeral head.



VOR II: Pineal: (B) 1.5 units posterior to orbital ridge at level of pupil.



MAP: GB 19: (B) 2 units lateral to lambda.

VL: T10 L

LB: T1 L

MM: C4

CRANIAL: TEMPORAL

FOOT: 3RD METATARSAL

NUTRIENT: VITAMIN B6

**ORIGIN:**

Lower part of ligamentum nuchae (C4-C6) and spinous process of C7-T2.

**INSERTION:**

Sides of the spinous processes of C2 to C3.

**FUNCTION:**

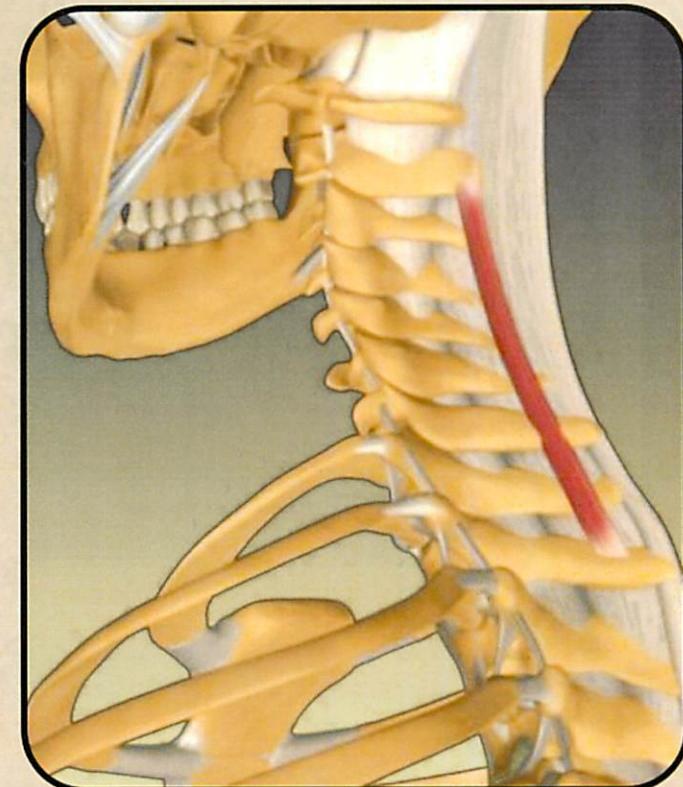
Extension of the vertebral column.

**NERVE SUPPLY:**

Dorsal rami of cervical and thoracic spinal nerves (C4 to T1).

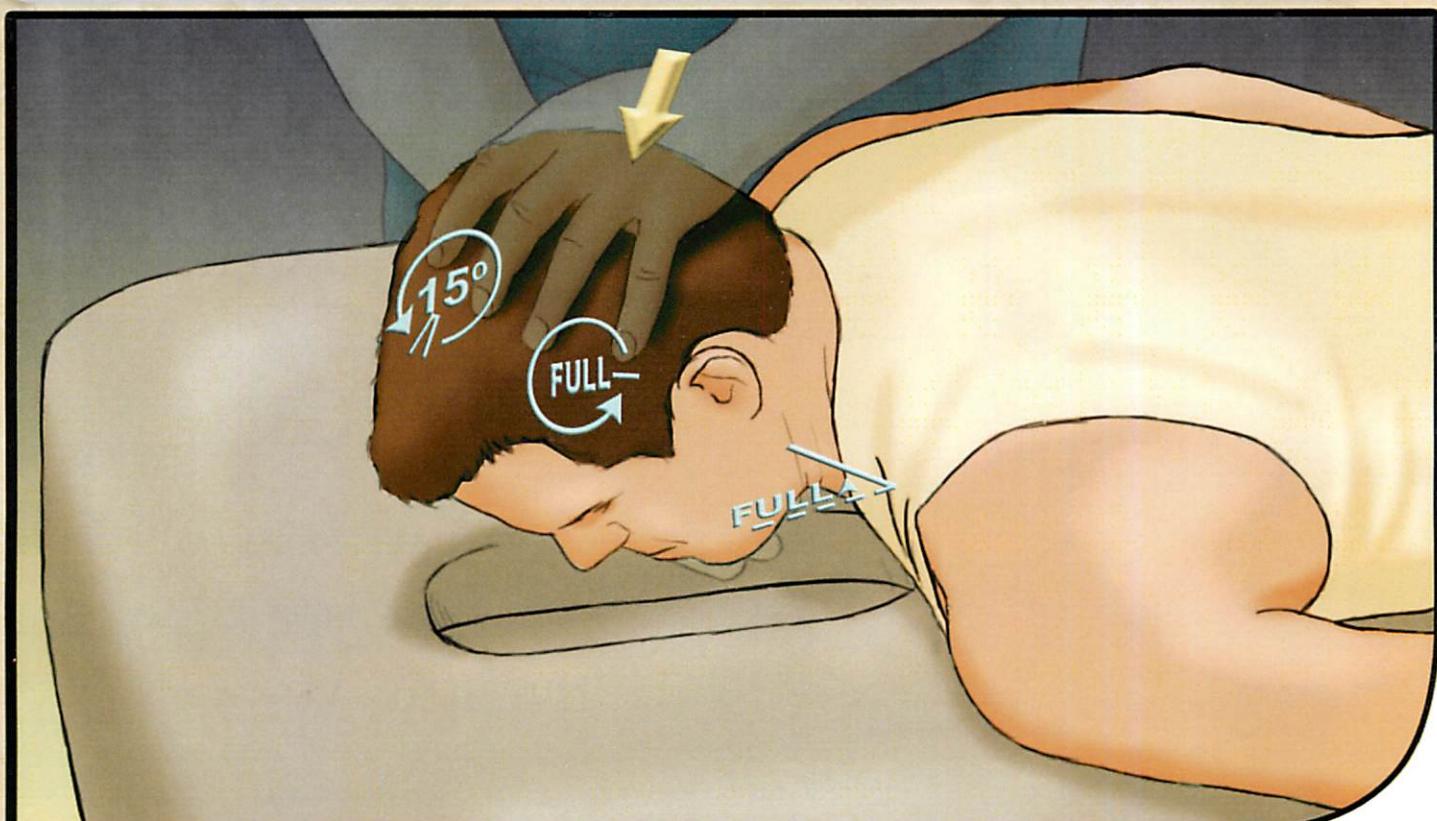
**BLOOD SUPPLY:**

The muscle receives a blood supply from muscular Dorsal branches of the posterior intercostal arteries from the thoracic aorta.

**TEST:**

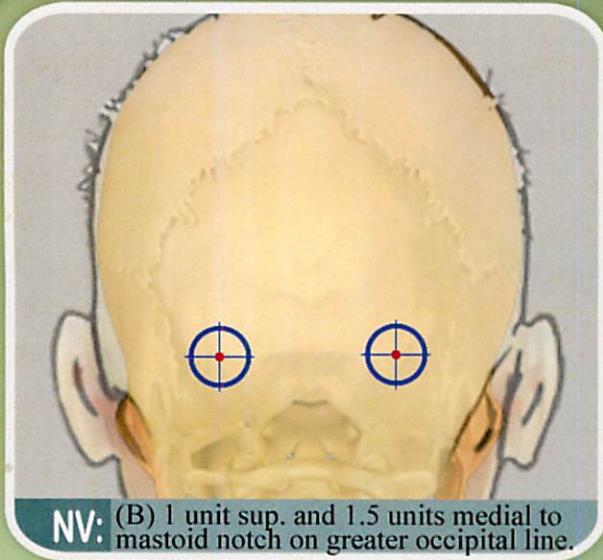
PATIENT: Supine. Rotate head 15° ipsilateral; full flexion of head on neck. Full extension of neck on trunk.

EXAMINER: Side of table. Contact occiput. Flex head on neck through sagittal plane of body.

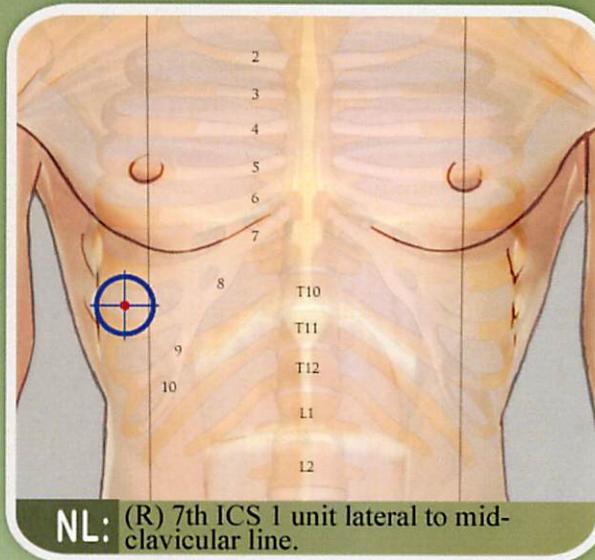


POSTERIOR NECK

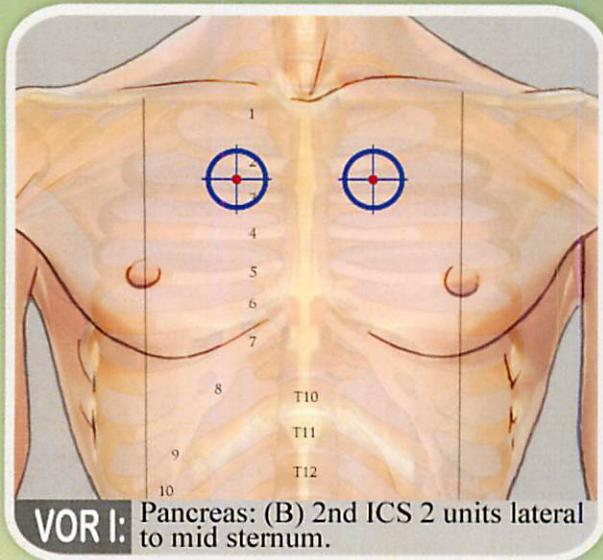
338 SPINALIS CAPITIS:



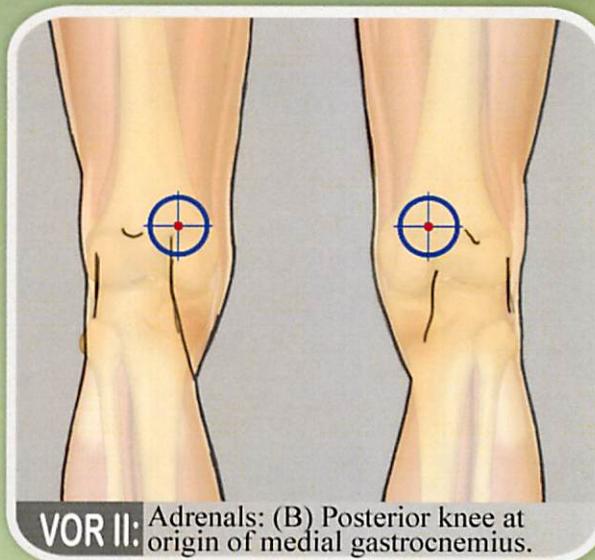
NV: (B) 1 unit sup. and 1.5 units medial to mastoid notch on greater occipital line.



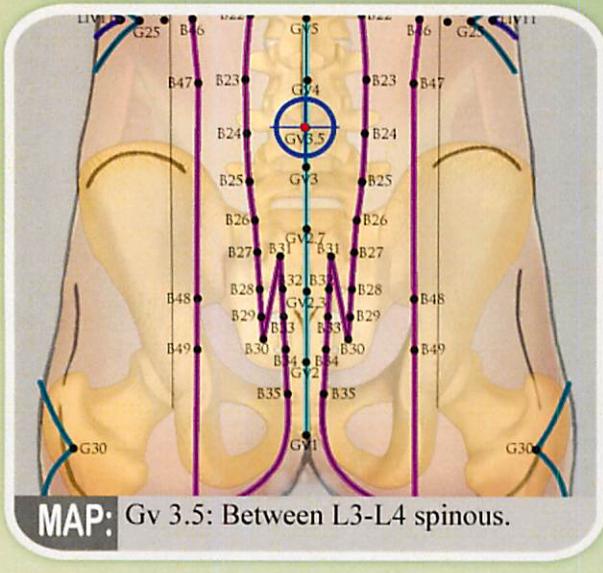
NL: (R) 7th ICS 1 unit lateral to mid-clavicular line.



VOR I: Pancreas: (B) 2nd ICS 2 units lateral to mid sternum.



VOR II: Adrenals: (B) Posterior knee at origin of medial gastrocnemius.



MAP: Gv 3.5: Between L3-L4 spinous.

VL: T8 L

LB: T3 L

MM: C1

CRANIAL: PARIETAL

FOOT: 3RD METATARSAL

NUTRIENT: VITAMIN C

**ORIGIN:**

Side of spinous processes of C7-T3.

**INSERTION:**

Near the midline between superior and inferior nuchal lines of occipital bone.

**FUNCTION:**

Extension of the vertebral column and head.

**NERVE SUPPLY:**

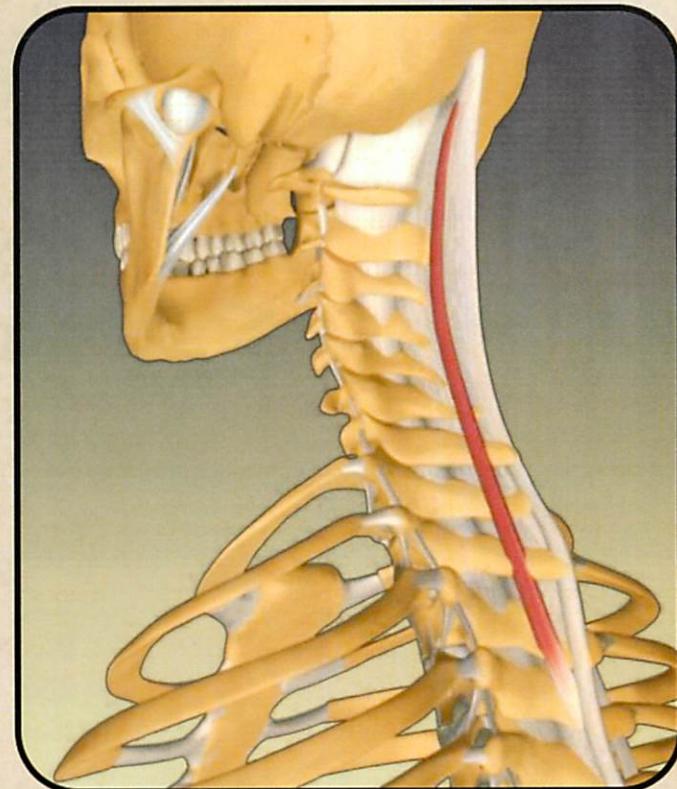
Dorsal rami of cervical spinal nerves (C1 to C3)

**BLOOD SUPPLY:**

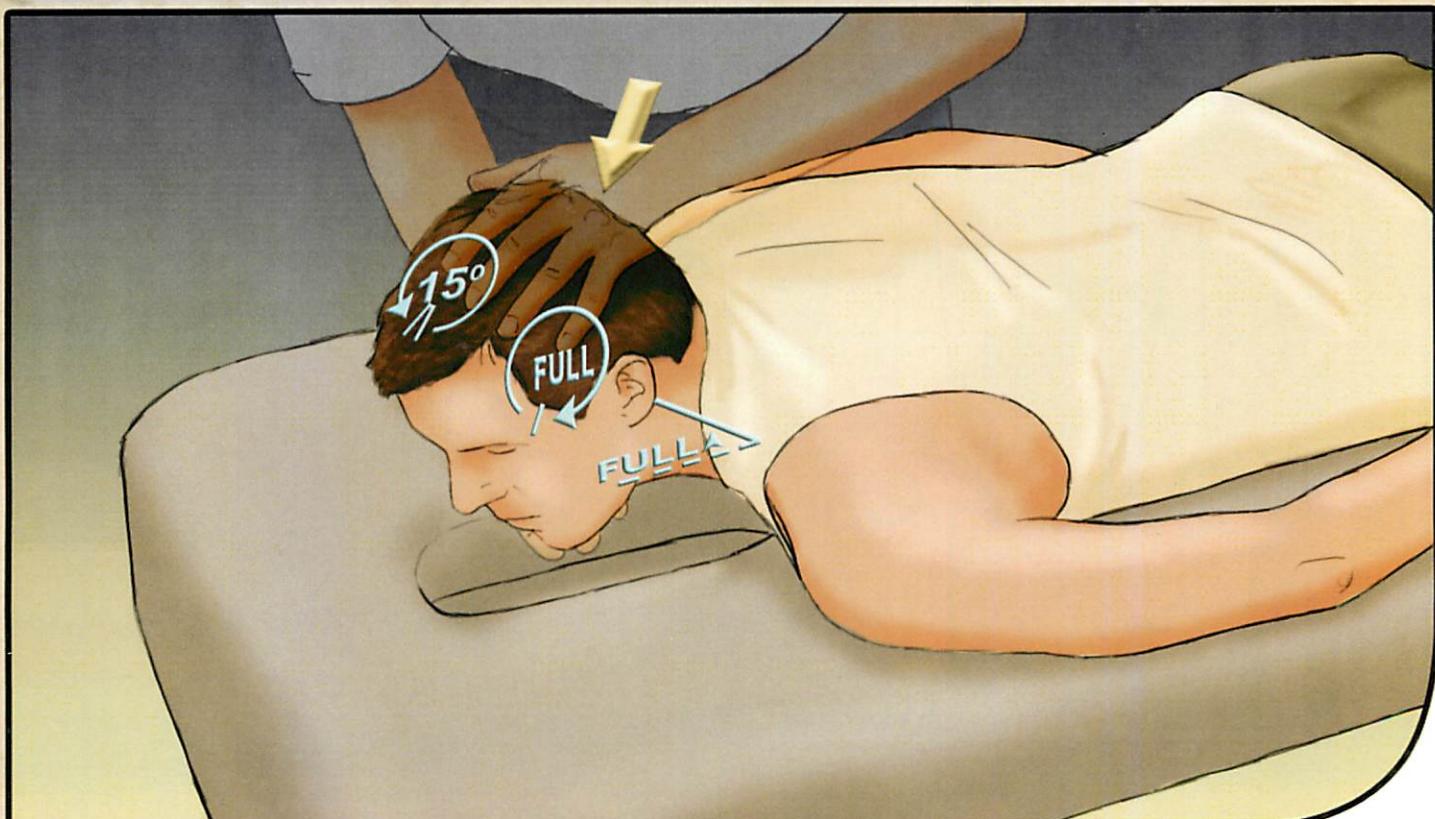
The muscle receives a blood supply from muscular branches of the vertebral artery via the subclavian and also from muscular branches of the occipital artery via the external carotid artery.

**TEST:**

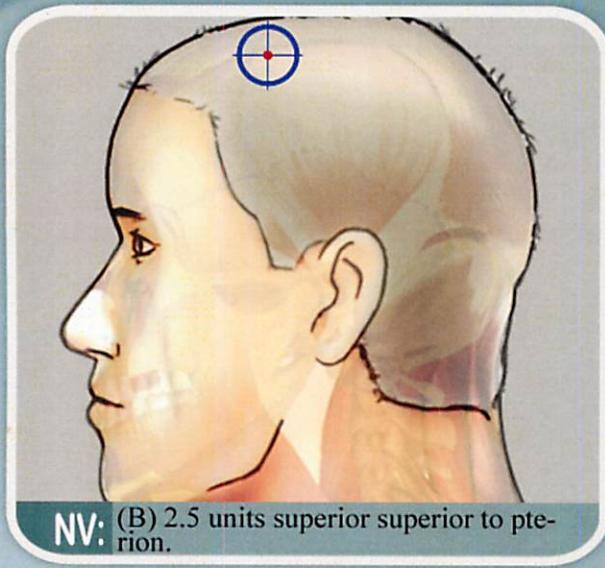
PATIENT: Supine. 15° ipsilateral rotation head. Full extension of head on neck. Full flexion of neck on trunk.



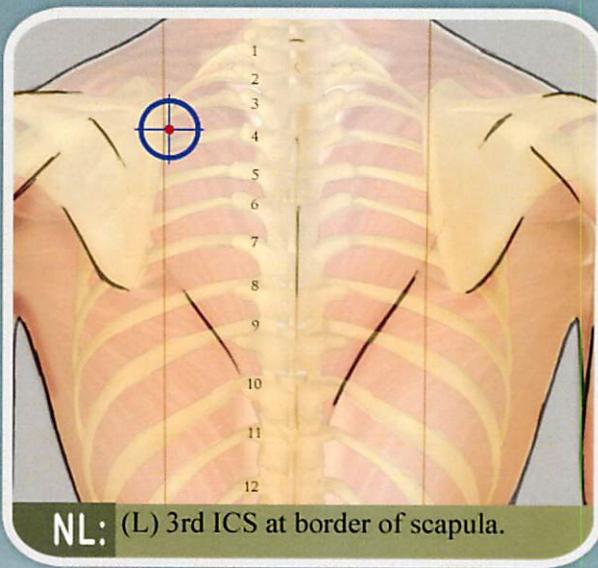
EXAMINER: Side of table. Contact occiput. Flex head on neck through sagittal plane of body.



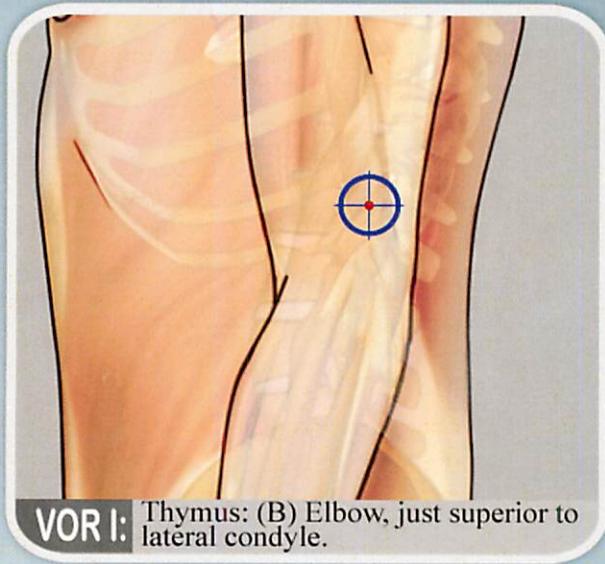
340 RECTUS CAPITIS POSTERIOR MAJOR:



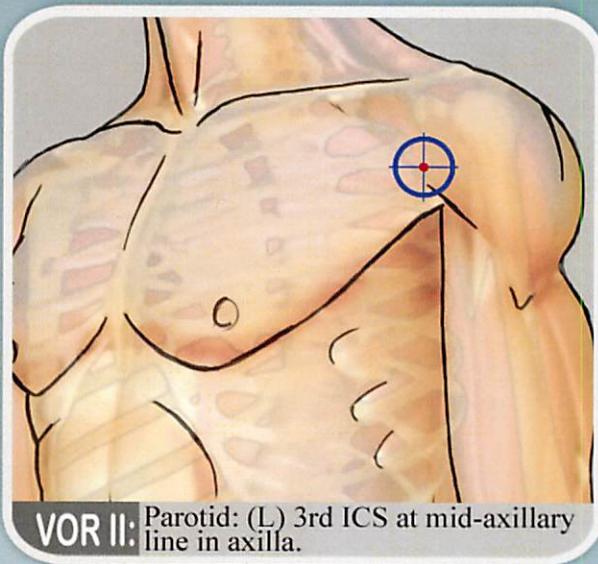
NV: (B) 2.5 units superior superior to pterion.



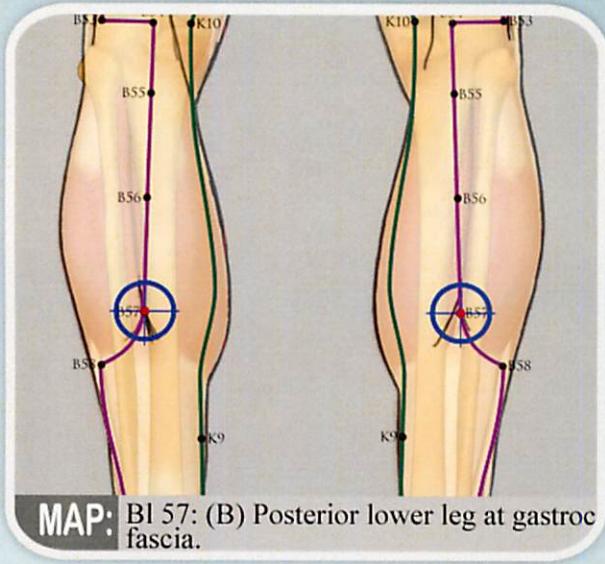
NL: (L) 3rd ICS at border of scapula.



VOR I: Thymus: (B) Elbow, just superior to lateral condyle.



VOR II: Parotid: (L) 3rd ICS at mid-axillary line in axilla.



MAP: BI 57: (B) Posterior lower leg at gastroc fascia.

VL: T9 R

LB: T2 R

MM: C1

CRANIAL: OCCIPUT

FOOT: 2ND METATARSAL

NUTRIENT: CALCIUM

**ORIGIN:**

Tip of the spinous process of the axis.

**INSERTION:**

Lateral aspect of the inferior nuchal line of the occipital bone.

**FUNCTION:**

Probably assists with extension and rotation of the head, but is most likely a postural muscle that monitors the position of the head.

**NERVE SUPPLY:**

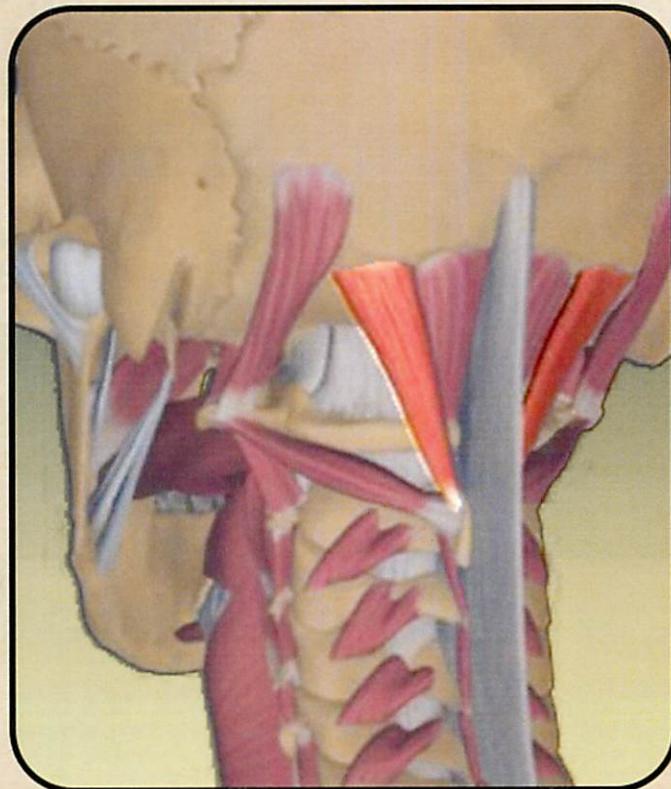
Suboccipital nerve or dorsal ramus of cervical spinal nerve (C1).

**BLOOD SUPPLY:**

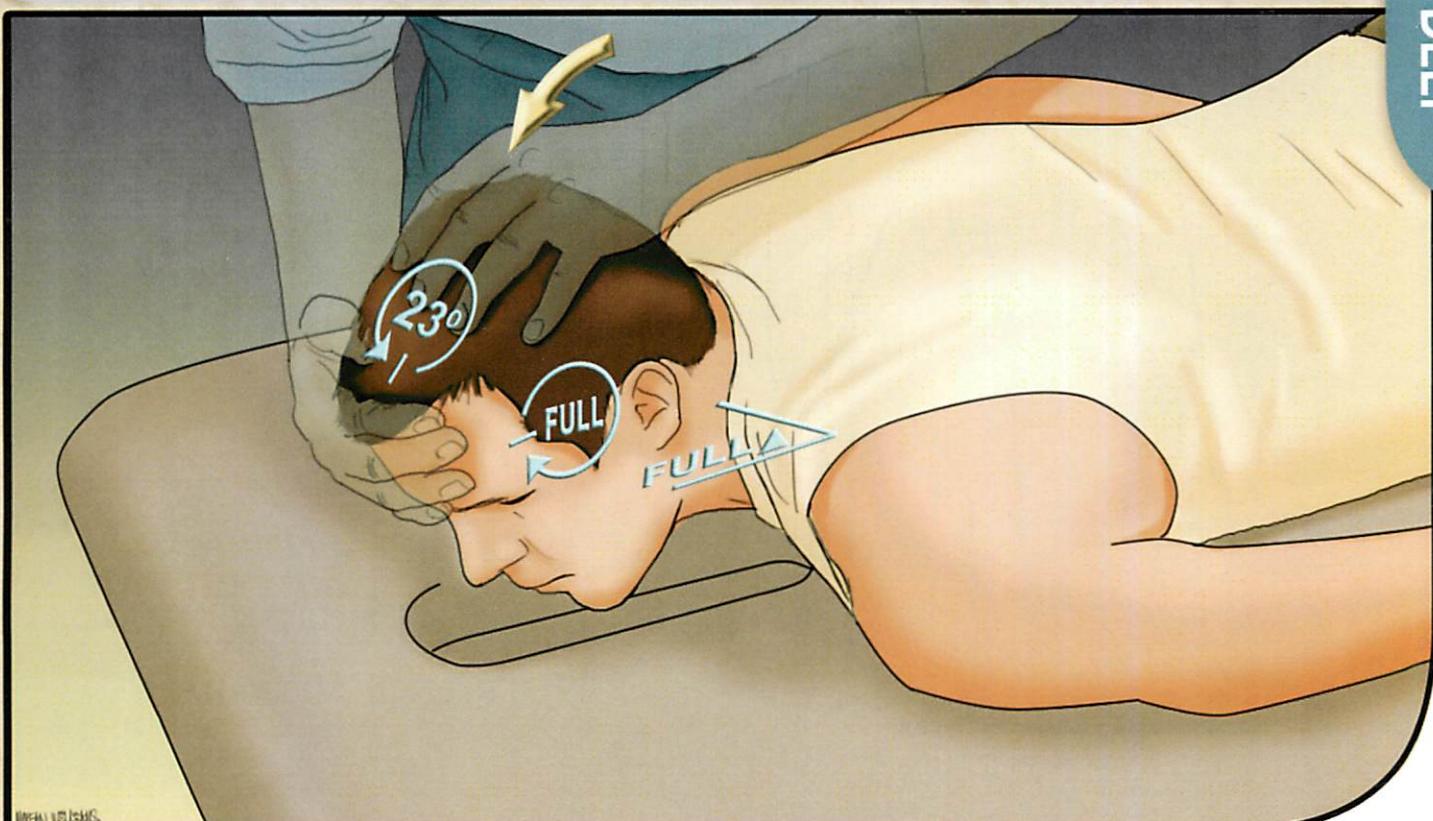
The muscle receives its blood supply from the vertebral artery and the deep descending branch of the occipital artery.

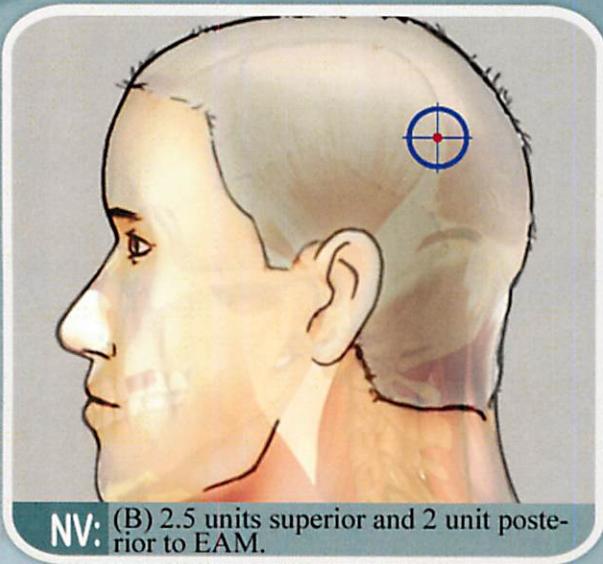
**TEST:**

PATIENT: Prone or sitting. 23° rotation of head ipsilateral. Full extension of head on neck. Full extension of neck on trunk.

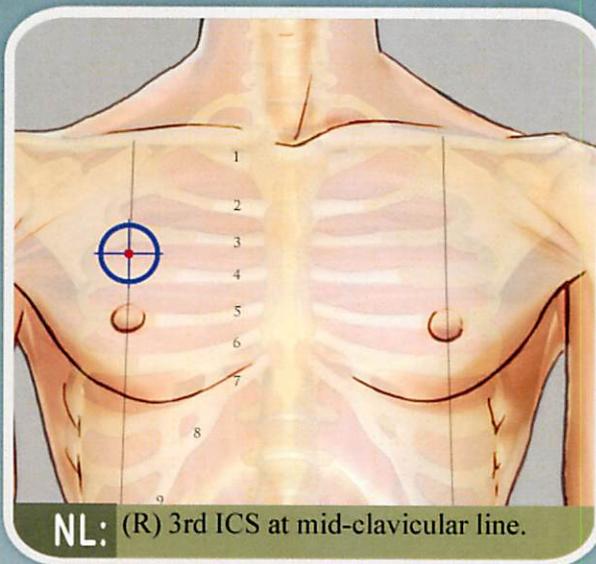


EXAMINER: Side of table. Bilateral on frontal and occipital. Rotate head to flex head on neck in sagittal plane of head.

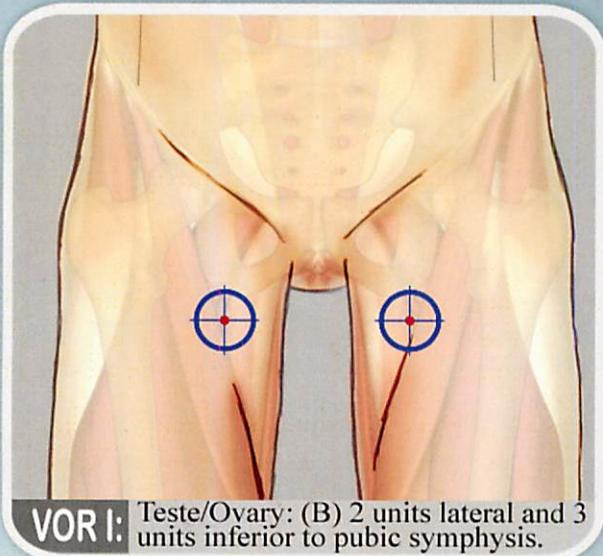




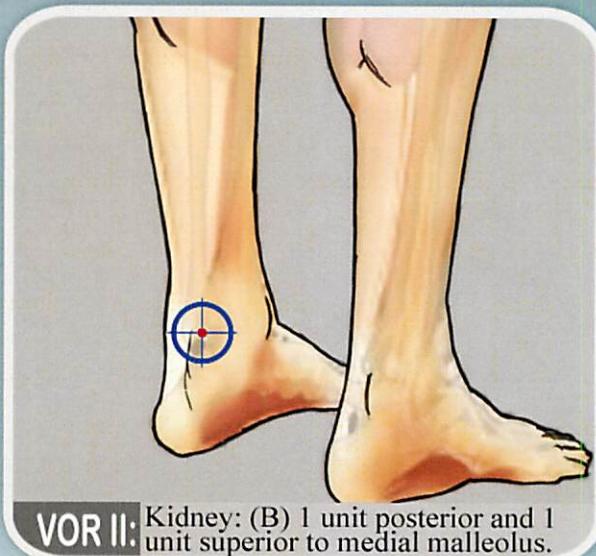
NV: (B) 2.5 units superior and 2 unit posterior to EAM.



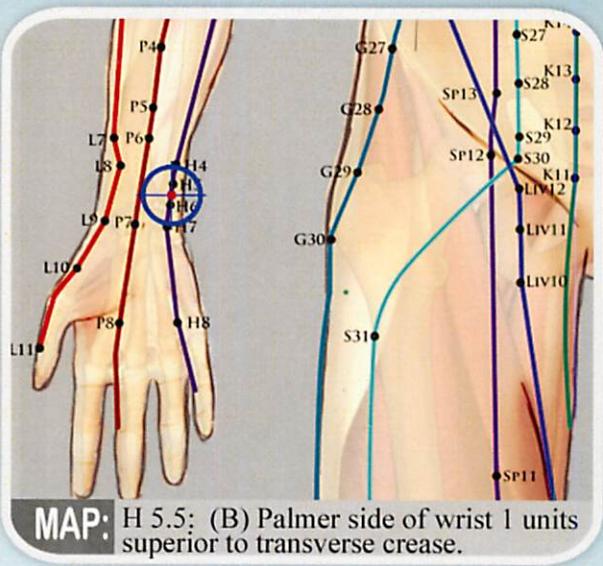
NL: (R) 3rd ICS at mid-clavicular line.



VOR I: Teste/Ovary: (B) 2 units lateral and 3 units inferior to pubic symphysis.



VOR II: Kidney: (B) 1 unit posterior and 1 unit superior to medial malleolus.



MAP: H 5.5: (B) Palmer side of wrist 1 units superior to transverse crease.

VL: T6 L

LB: T5 L

MM: C4

CRANIAL: LACRIMAL

FOOT: 3RD CUNIEFORM

NUTRIENT: VITAMIN C

ORIGIN:

Tubercle on the posterior arch of the atlas.

**INSERTION:**

Medial portion of the inferior nuchal line of the occipital bone.

**FUNCTION:**

Probably assists with extension of the head, but is most likely a postural muscle that monitors the position of the head.

**NERVE SUPPLY:**

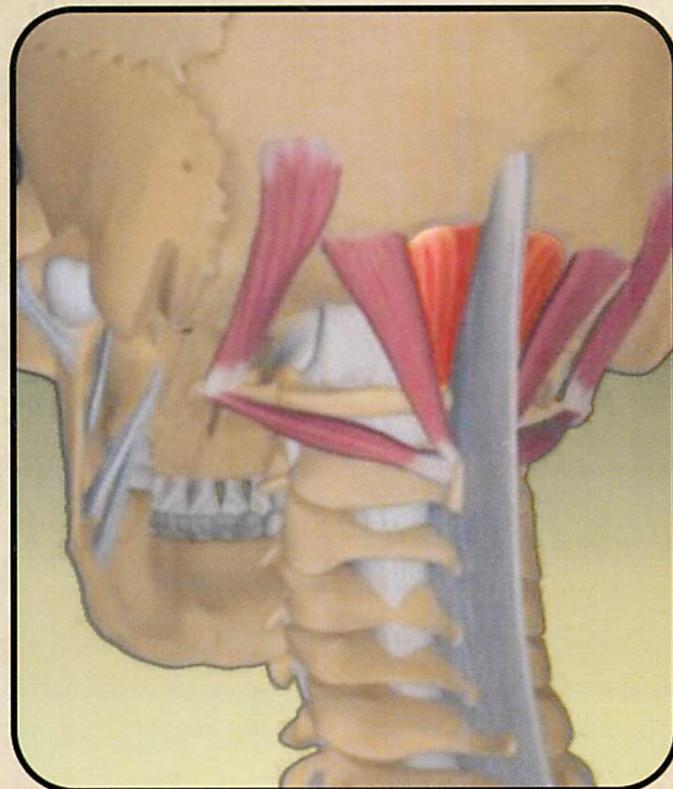
Suboccipital nerve or dorsal ramus of cervical spinal nerve (C1).

**BLOOD SUPPLY:**

The muscle receives its blood supply from the vertebral artery and the deep descending branch of the occipital artery.

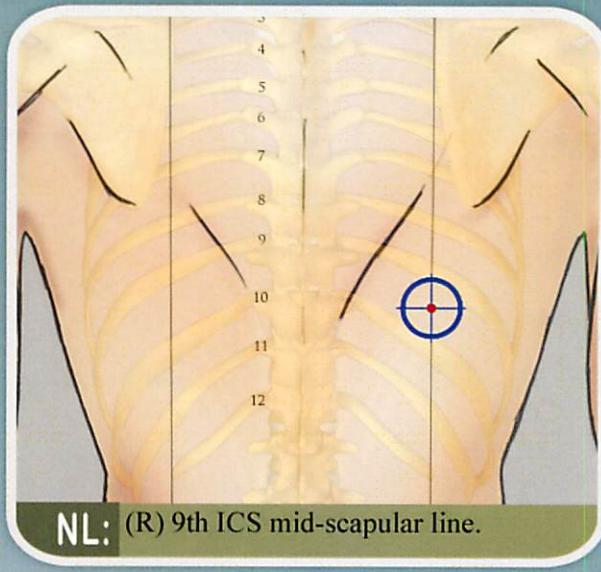
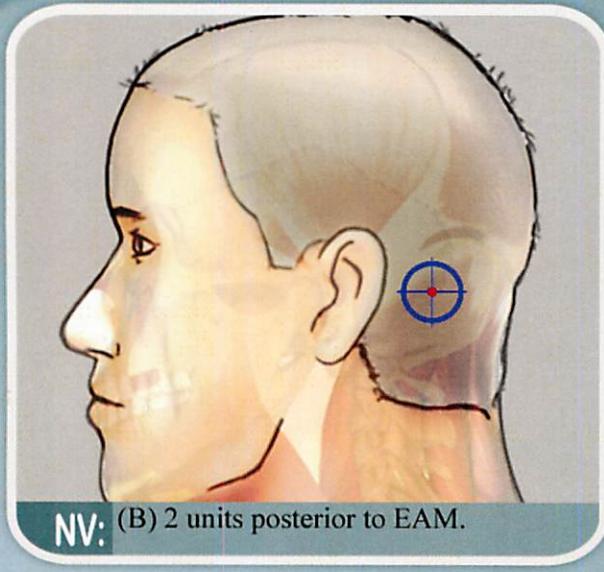
**TEST:**

PATIENT: Prone or sitting. 15° rotation of head ipsilateral. Full extension of head on neck. Full extension of neck on trunk.

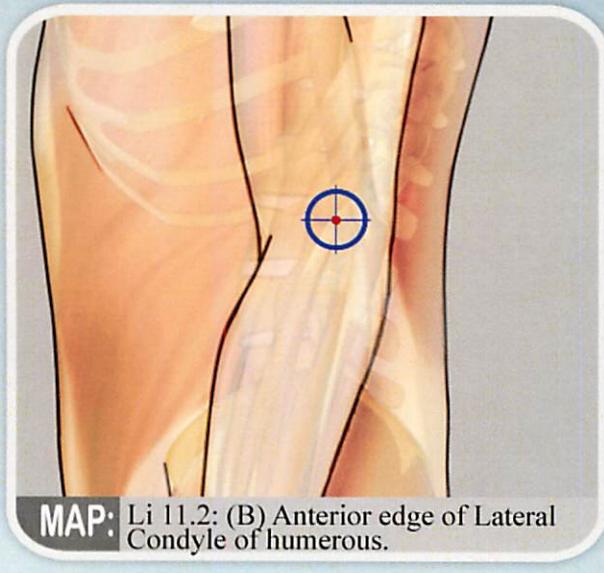
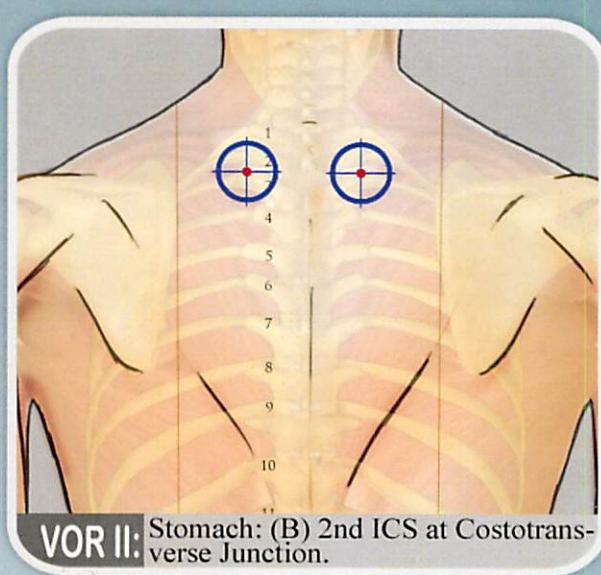
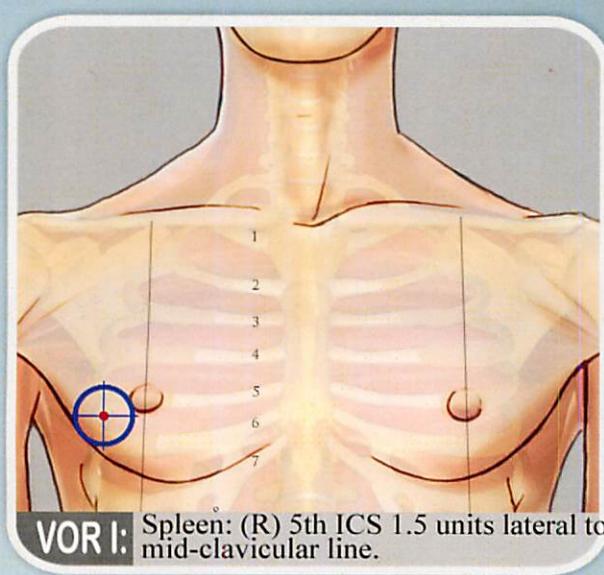


EXAMINER: Side of table. Bilateral on frontal and occipital. Rotate head to flex head on neck in sagittal plane of head.





SUBOCCIPITAL AND DEEP



VL: T5 L
LB: T6 L
MM: C1

CRANIAL: OCCIPUT

FOOT: 3RD CUNEIFORM

NUTRIENT: IRON

**ORIGIN:**

Base of spine and adjoining lamina of the axis.

**INSERTION:**

Along the inferior aspect of the tip of the transverse process of the atlas.

**FUNCTION:**

Rotates the head to the same side as the muscle.

**NERVE SUPPLY:**

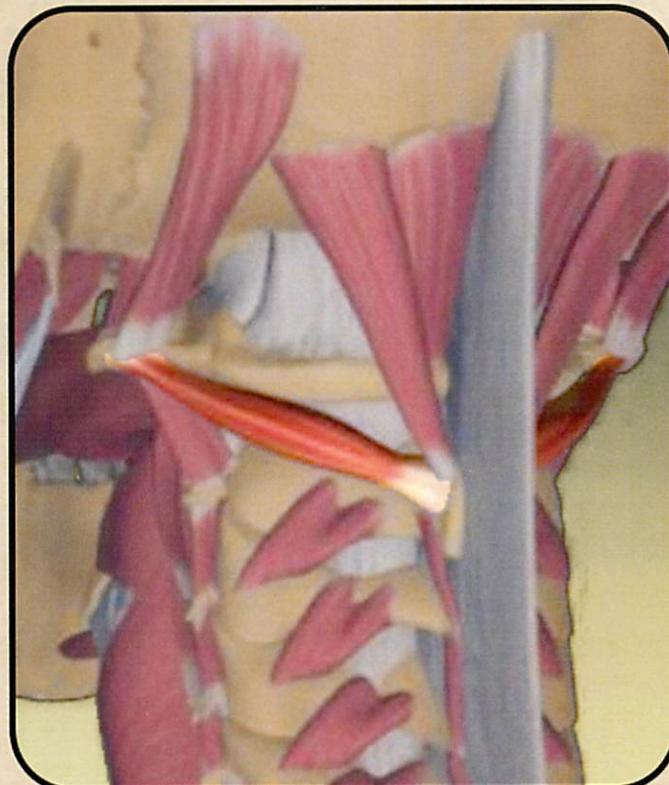
Suboccipital nerve or dorsal ramus of cervical spinal nerve (C1).

**BLOOD SUPPLY:**

The muscle receives its blood supply from the vertebral artery and the deep descending branch of the occipital artery.

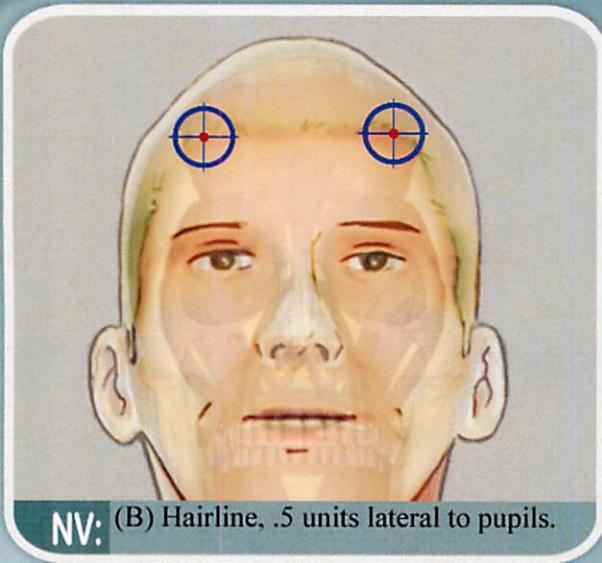
**TEST:**

PATIENT: Supine or sitting. Full rotation of head ipsilateral. Full flexion of head on neck.

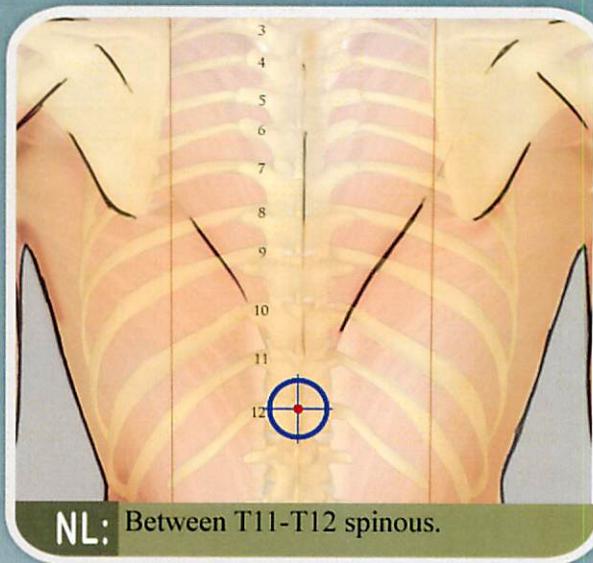


EXAMINER: Head of table or behind patient if sitting. Contact bilateral on head. Rotate head contralateral with slight flexion.

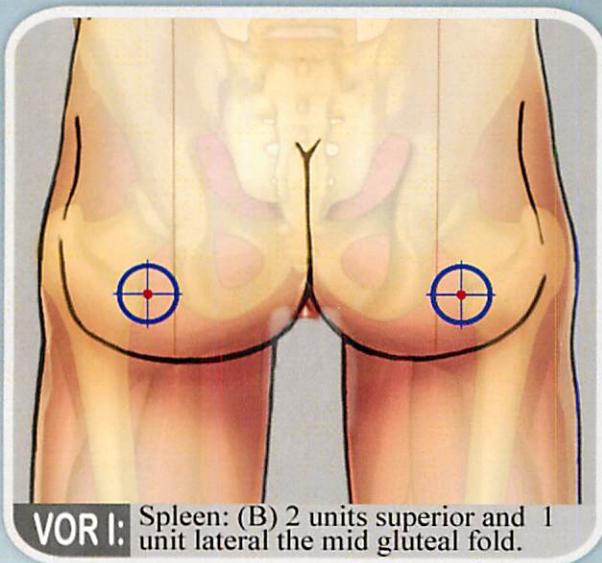




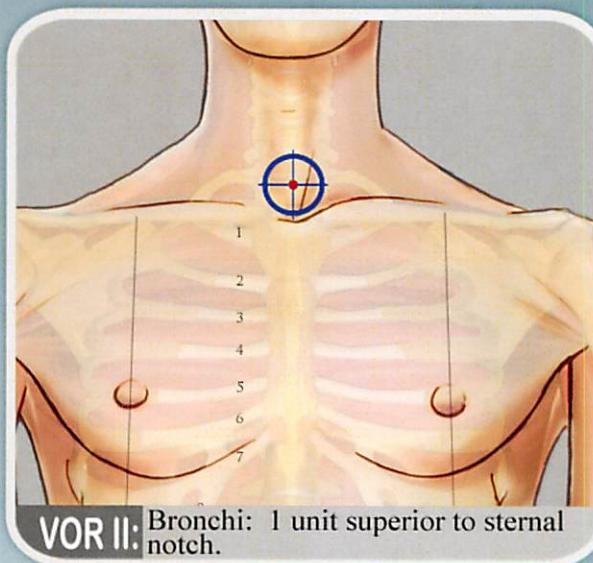
NV: (B) Hairline, .5 units lateral to pupils.



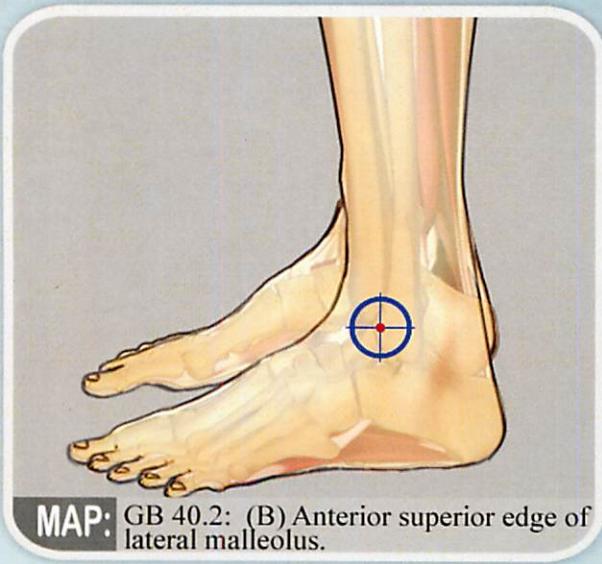
NL: Between T11-T12 spinous.



VOR I: Spleen: (B) 2 units superior and 1 unit lateral the mid gluteal fold.



VOR II: Bronchi: 1 unit superior to sternal notch.



MAP: GB 40.2: (B) Anterior superior edge of lateral malleolus.

VL: T10 R

LB: T1 R

MM: C1

CRANIAL: OCCIPUT

FOOT: CALCANEUS

NUTRIENT: RUTIN

**ORIGIN:**

Upper part of the tip of the transverse process of the atlas.

**INSERTION:**

Between the superior and inferior nuchal lines of the occipital bone.

**FUNCTION:**

Probably assists with lateral flexion and extension, but is most likely a postural muscle that monitors the position of the head.

**NERVE SUPPLY:**

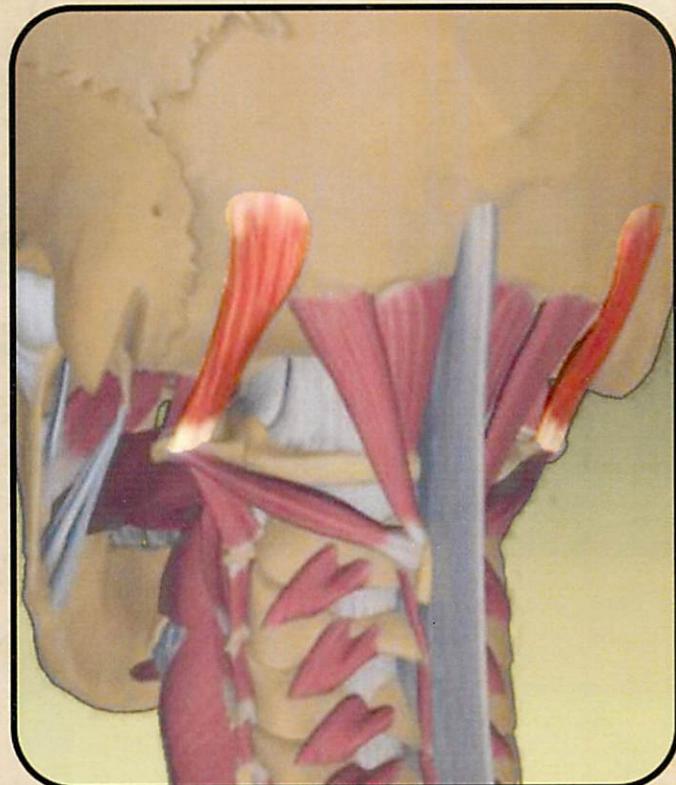
Suboccipital nerve or dorsal ramus of cervical spinal nerve (C1).

**BLOOD SUPPLY:**

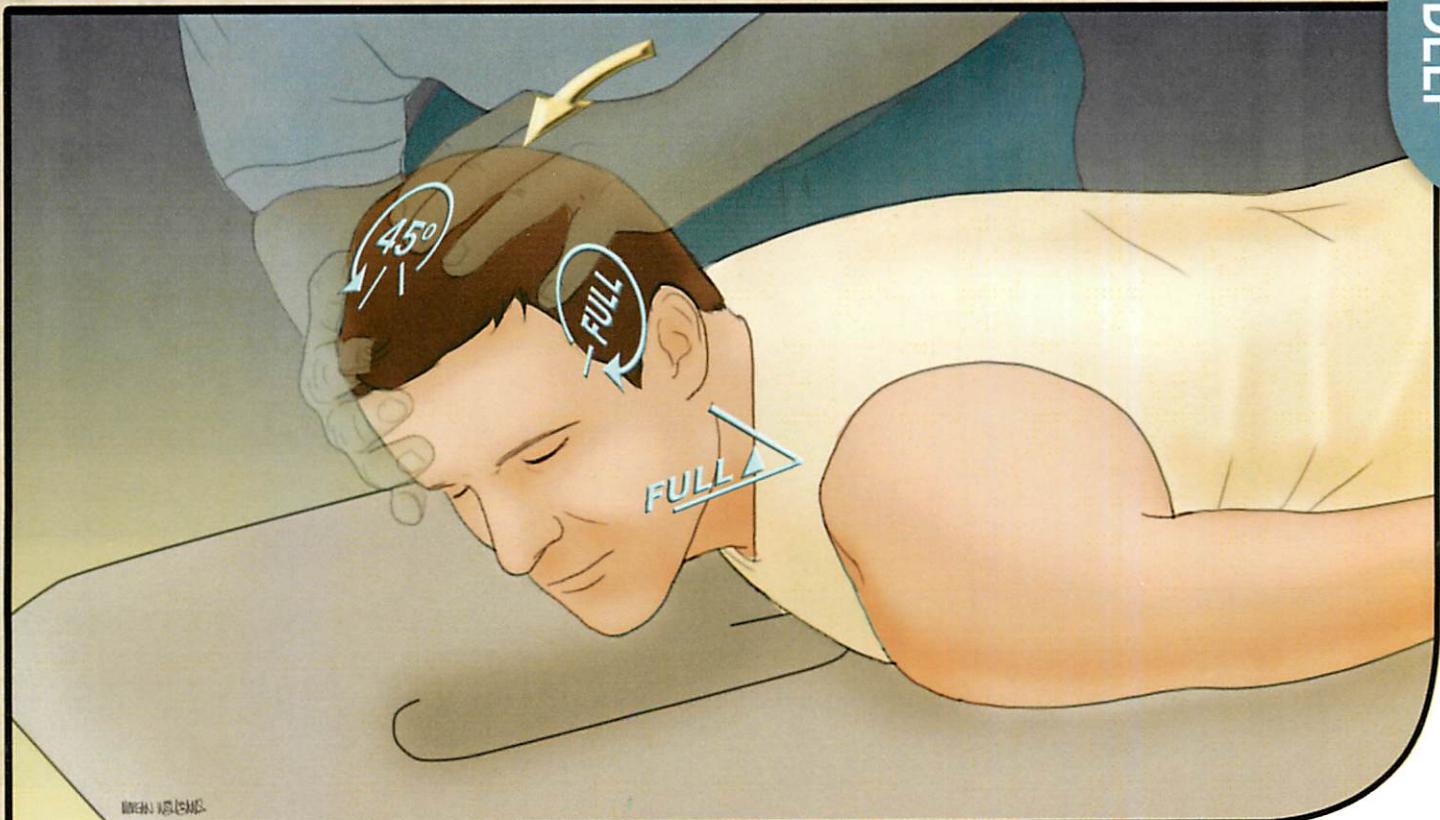
The muscle receives its blood supply from the vertebral artery and the deep descending branch of the occipital artery.

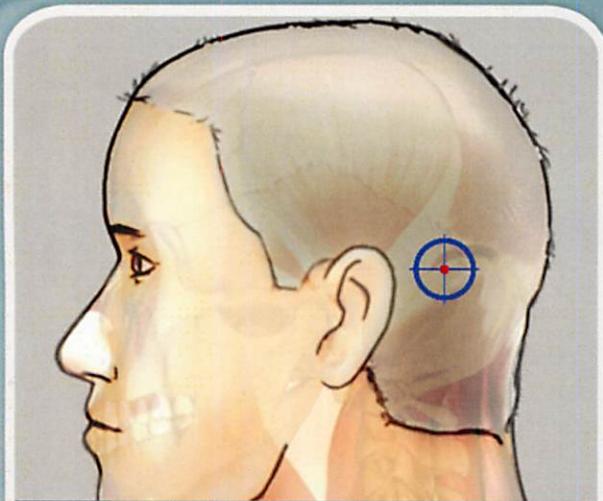
**TEST:**

PATIENT: Supine or sitting. Rotate head 45° ipsilateral. Full extension of head on neck. Full extension of neck on trunk.

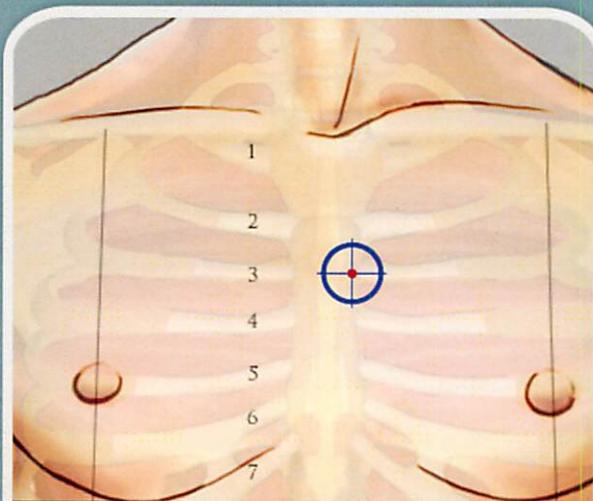


EXAMINER: Head of table or behind patient if sitting. Contact bilateral on head. Flex head on neck along sagittal plane of body.

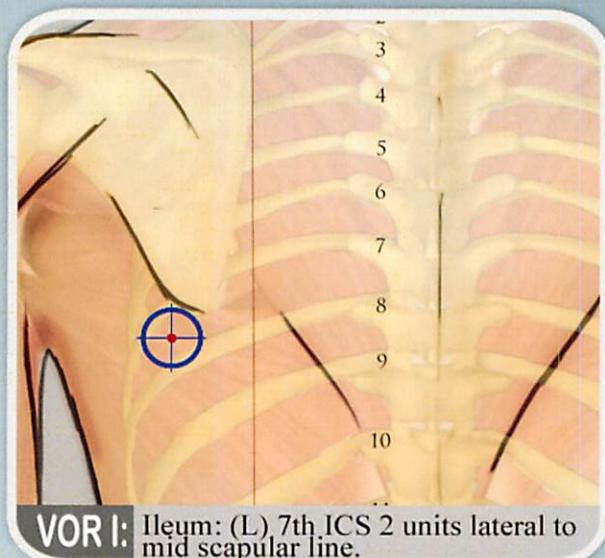




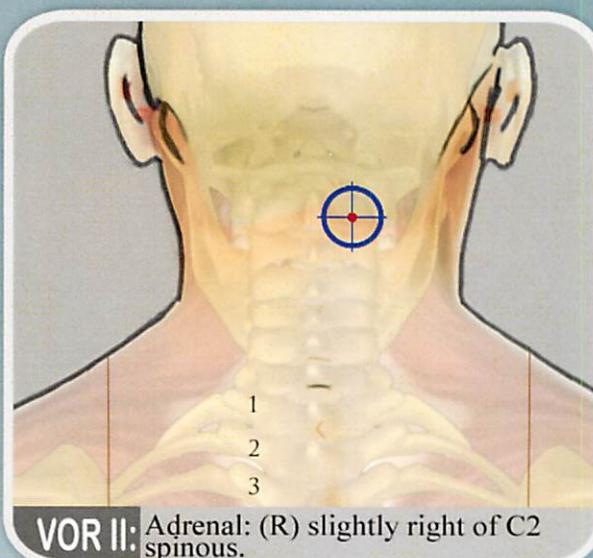
NV: (B) 1 unit superior and 2 units posterior to EAM.



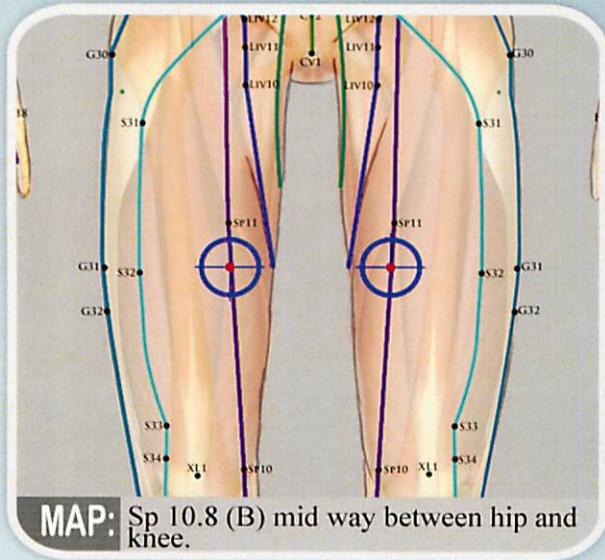
NL: (L) On the sternum at the level of the 3rd rib, slight left of midline.



VOR I: Ileum: (L) 7th ICS 2 units lateral to mid scapular line.



VOR II: Adrenal: (R) slightly right of C2 spinous.



MAP: Sp 10.8 (B) mid way between hip and knee.

VL: T3 L

LB: T8 L

MM: C5

CRANIAL: MAXILLAE

FOOT: 3RD CUNEIFORM

NUTRIENT: MANGANESE ?

**ORIGIN:**

Posterior surface of articular process of cervical vertebra.

**INSERTION:**

Posterior surface of the lamina of a superjacent cervical vertebra.

**FUNCTION:**

Possibly weakly assist with extension of the cervical vertebrae. They are most likely proprioceptive transducers that monitor the position and movements of the vertebral column and provide feedback that influences the activity of the larger multisegmental muscles of the vertebral column.

**NERVE SUPPLY:**

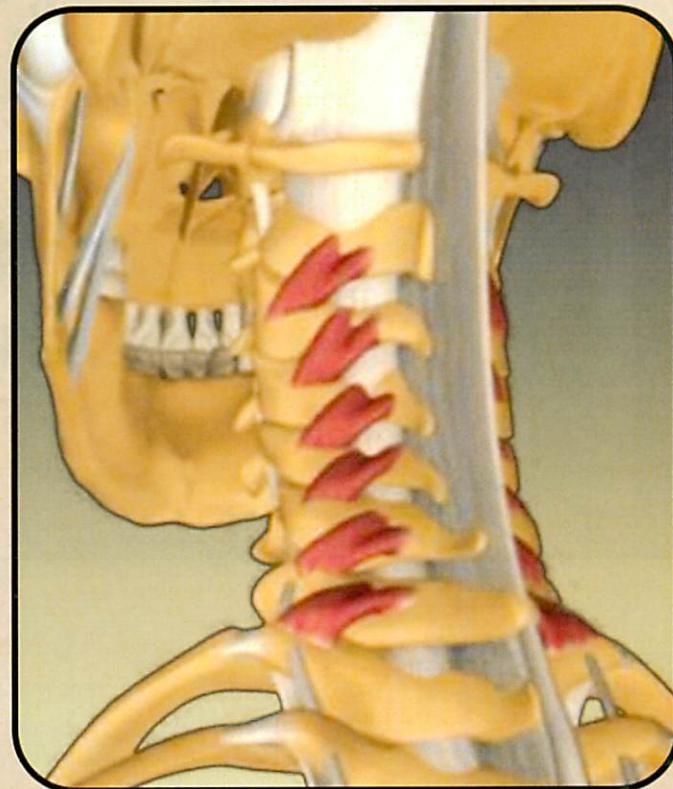
Dorsal rami of cervical spinal nerves (C3 to C8).

**BLOOD SUPPLY:**

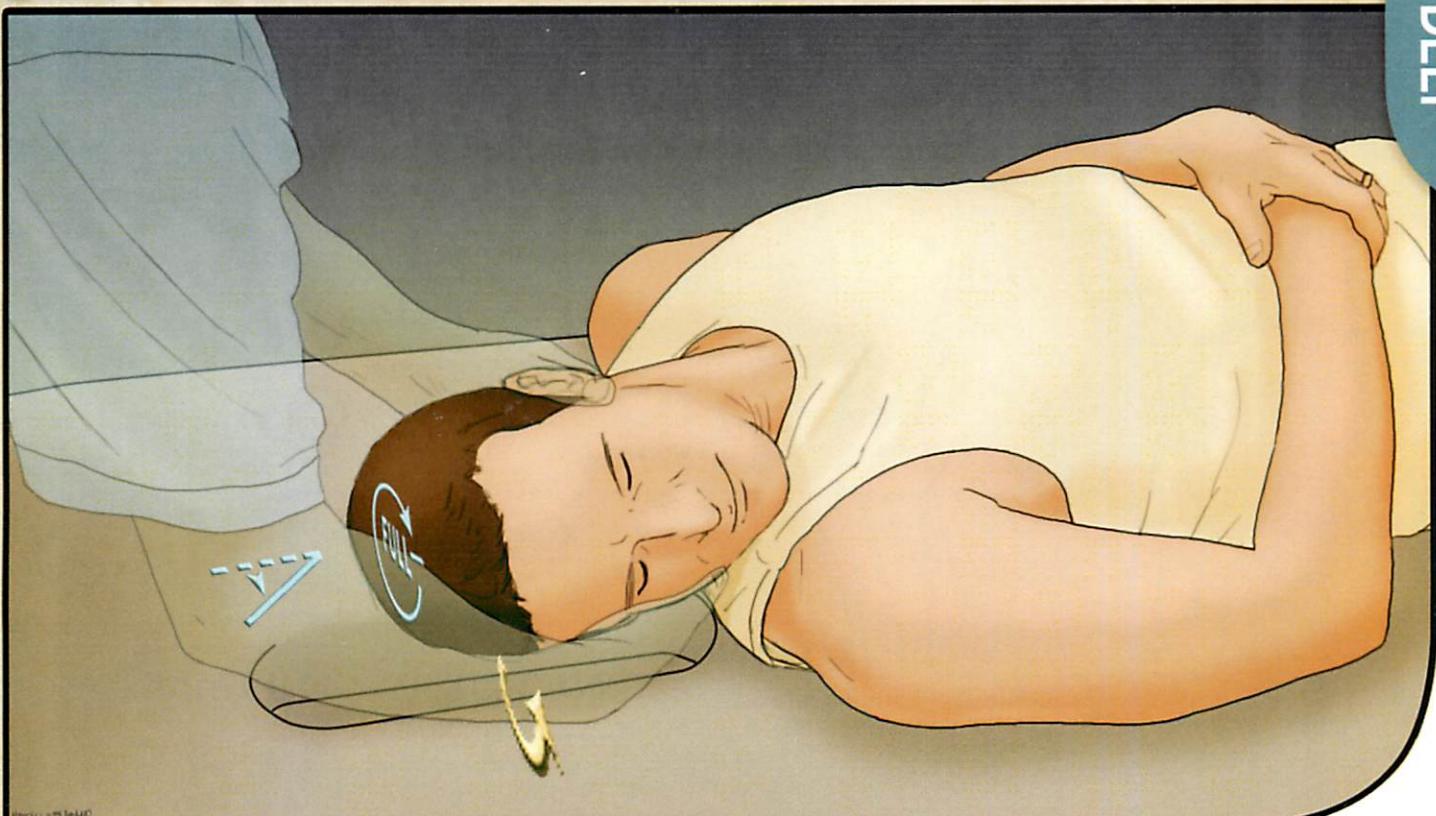
The muscle receives a blood supply from muscular branches of the vertebral artery via the subclavian and also from muscular branches of the occipital artery via the external carotid artery.

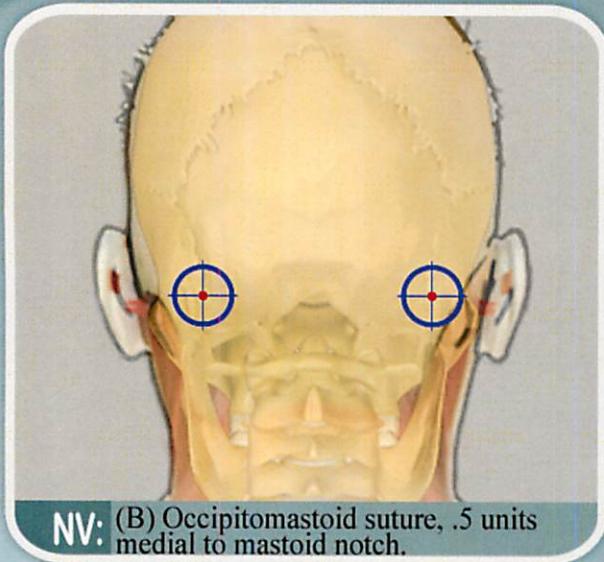
**TEST:**

PATIENT: Prone. Full ipsilateral rotation of head. Full lateral flexion of neck activates lower segments, partial lateral flexion activates upper segments.

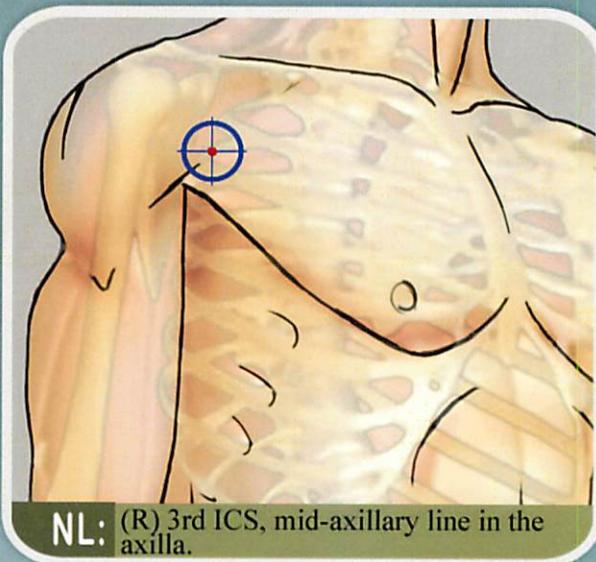


EXAMINER: Head of table. Contact sides of head. Rotate head to contralateral.





NV: (B) Occipitomastoid suture, .5 units medial to mastoid notch.

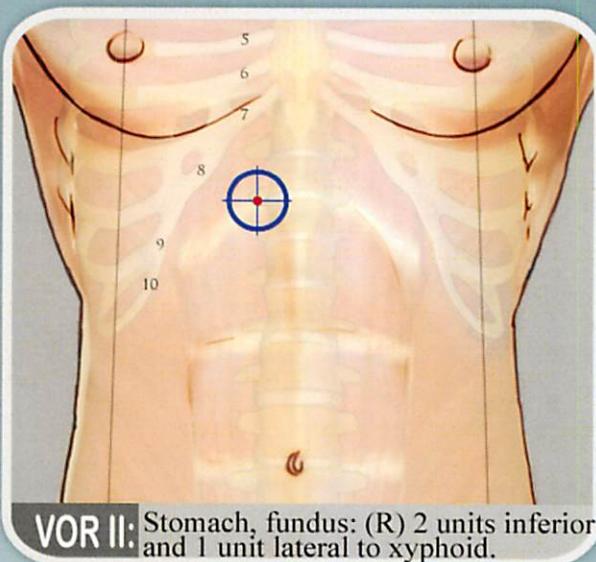


NL: (R) 3rd ICS, mid-axillary line in the axilla.

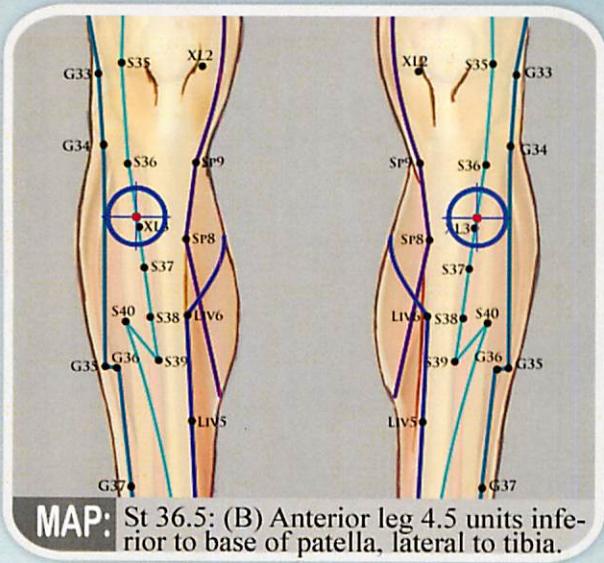
SUBOCCIPITAL AND DEEP



VOR I: Ascending Colon: (R) 2.5 units lateral to umbilicus.



VOR II: Stomach, fundus: (R) 2 units inferior and 1 unit lateral to xiphoid.



MAP: St 36.5: (B) Anterior leg 4.5 units inferior to base of patella, lateral to tibia.

VL: L4 L

LB: C2 L

MM: C6

CRANIAL:

FOOT:

NUTRIENT: THIAMINE

**ORIGIN:**

Side of the apex of the spinous process of C3-T1.

**INSERTION:**

Side of the apex of the spinous process of C2-7.

**FUNCTION:**

Possibly weakly assist with extension of the cervical vertebrae. They are most likely proprioceptive transducers that monitor the position and movements of the vertebral column and provide feedback that influences the activity of the larger multisegmental muscles of the vertebral column.

**NERVE SUPPLY:**

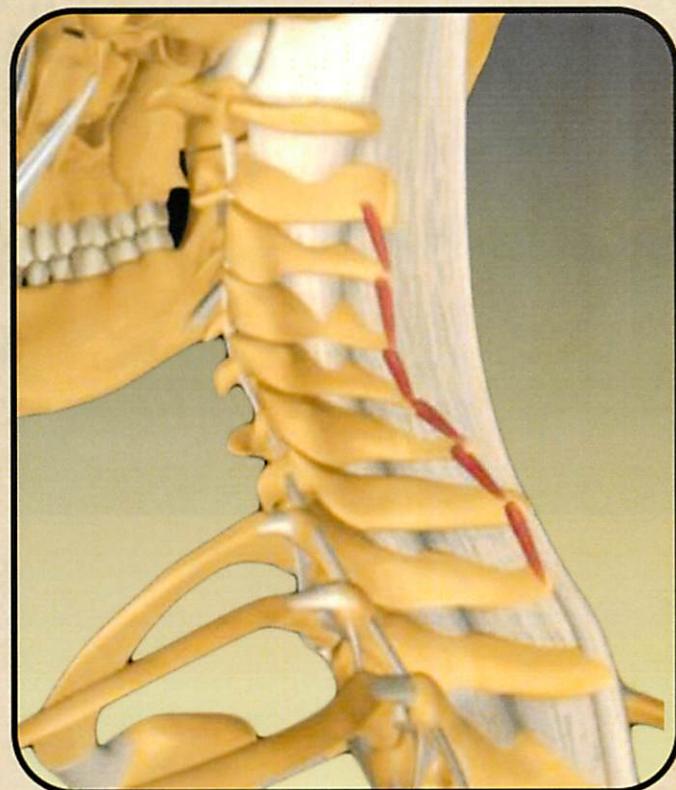
Dorsal rami of cervical spinal nerves (C3 to C8).

**BLOOD SUPPLY:**

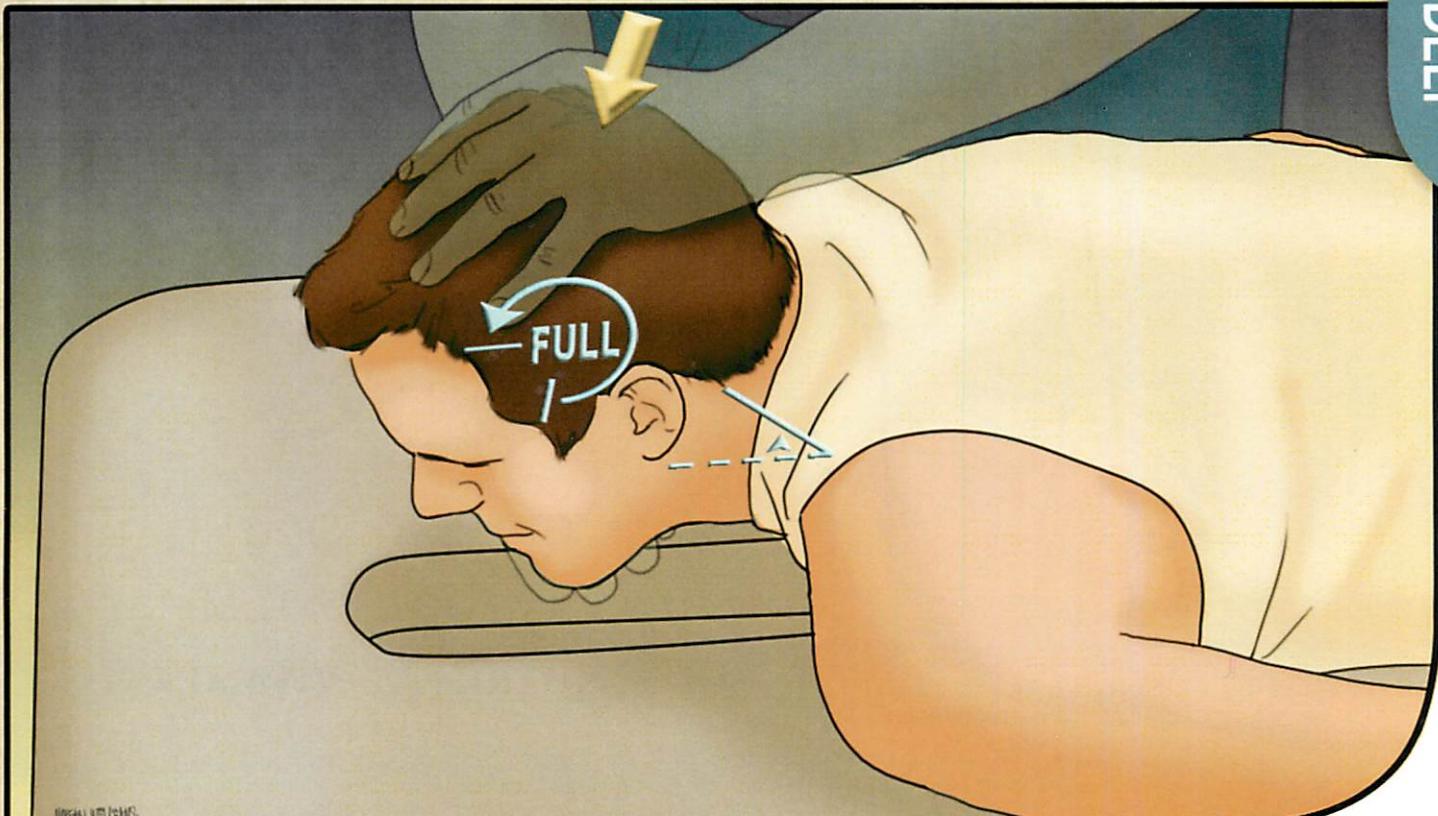
The muscle receives a blood supply from muscular branches of the vertebral artery via the subclavian and also from muscular branches of the occipital artery via the external carotid artery.

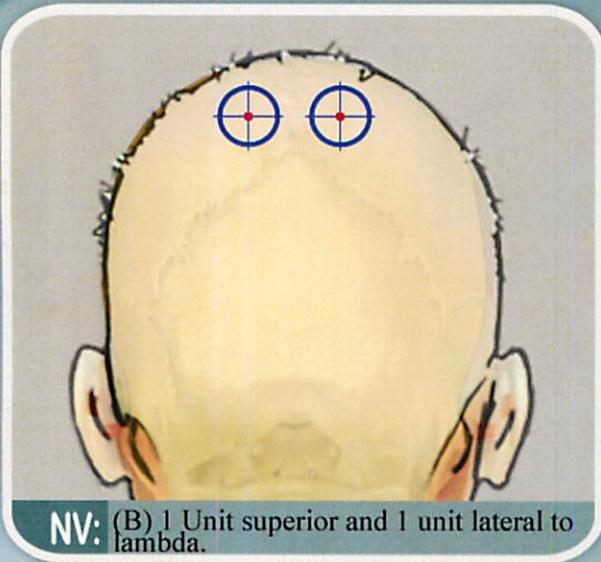
**TEST:**

PATIENT: Prone. Full flexion of head on neck. Full extension of neck on trunk activates the upper segments, partial extension activates the lower segments.

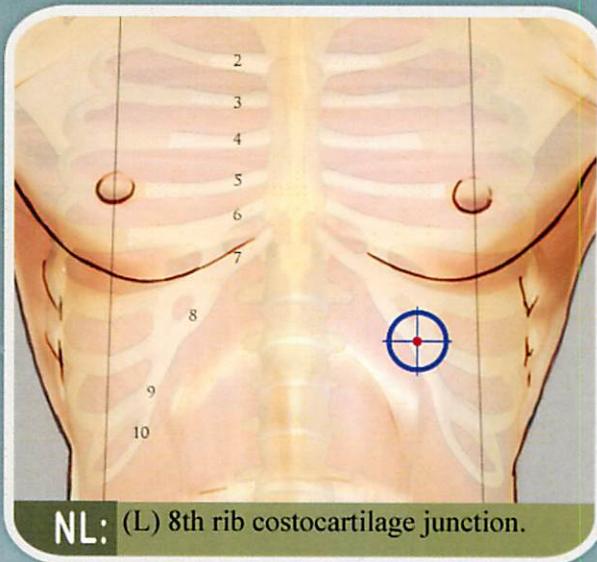


EXAMINER: Side of table. Contact occiput. Flex neck 15° obliquely contralateral through the sagittal plane of the body.





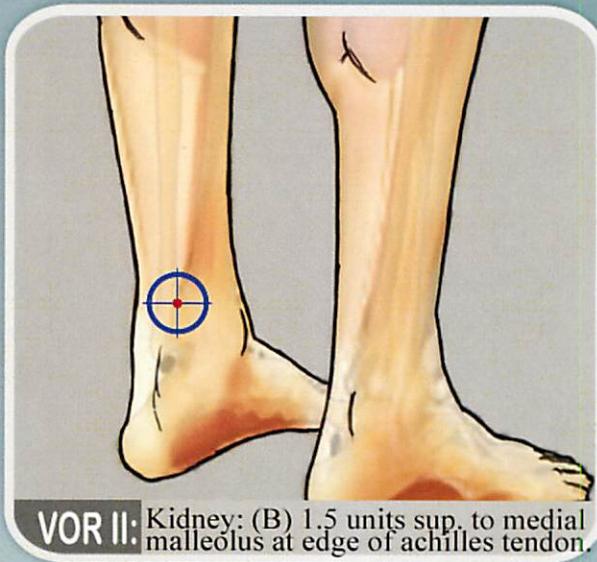
NV: (B) 1 Unit superior and 1 unit lateral to lambda.



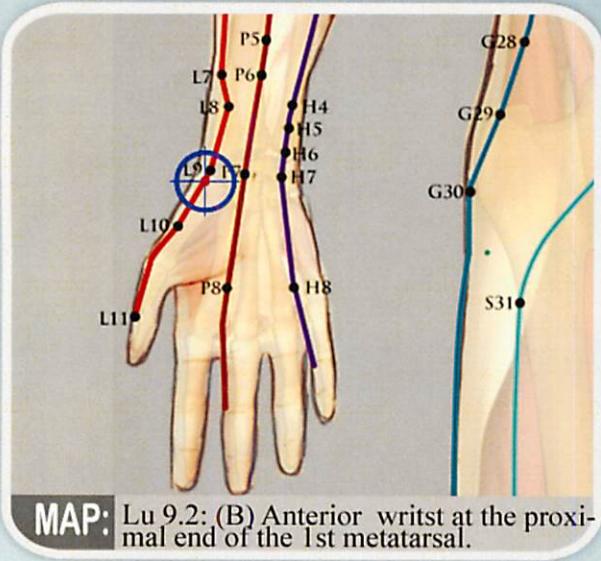
NL: (L) 8th rib costocartilage junction.



VOR I: Parathyroid: (R) 2.5 units inferior and 1 unit lateral to umbilicus.



VOR II: Kidney: (B) 1.5 units sup. to medial malleolus at edge of achilles tendon.



MAP: Lu 9.2: (B) Anterior wrist at the proximal end of the 1st metatarsal.

VL: C3 L

LB: L3 L

MM: C5

CRANIAL: SPHENOID

FOOT: 5TH METATARSAL

NUTRIENT: VITAMIN C

**ORIGIN:**

Articular processes of C4 to C7.

**INSERTION:**

Posterior surface of laminae and spinous processes of C2 to C6.

**FUNCTION:**

Extension of the cervical vertebral column; postural support of vertebral column; proprioceptive monitors of vertebral position.

**NERVE SUPPLY:**

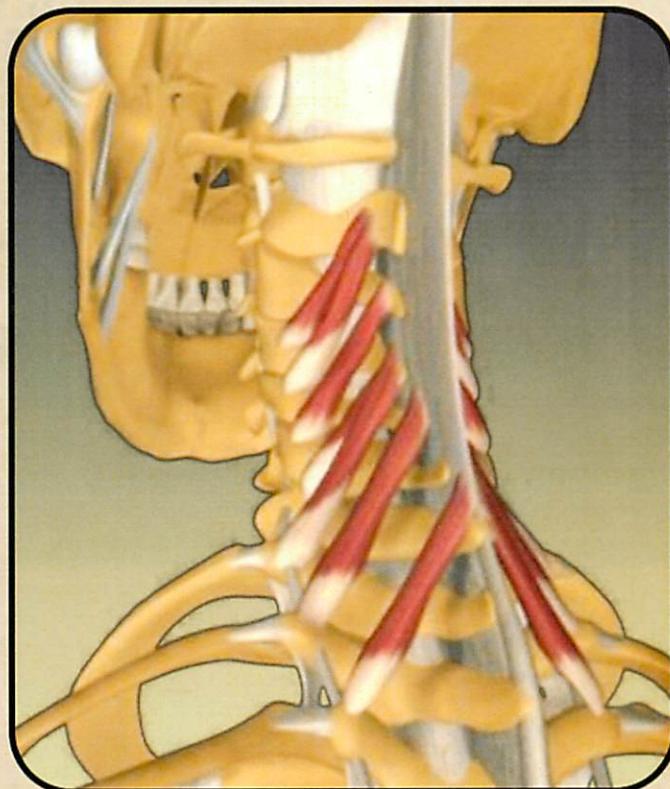
Dorsal rami of cervical and thoracic spinal nerves (C3 to T2)

**BLOOD SUPPLY:**

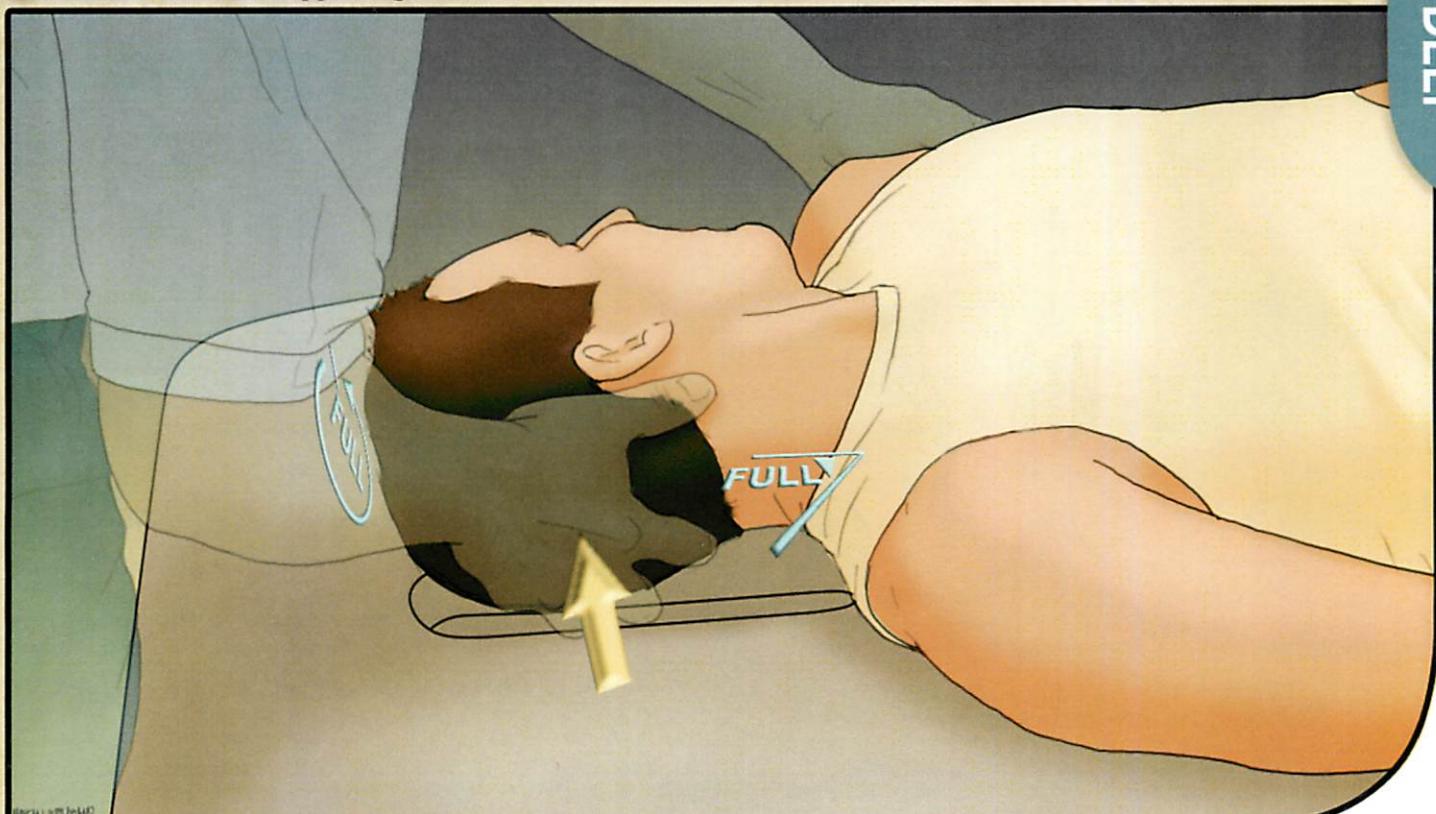
The muscle receives a blood supply from muscular branches of the vertebral artery via the subclavian and also from muscular branches of the occipital artery via the external carotid artery.

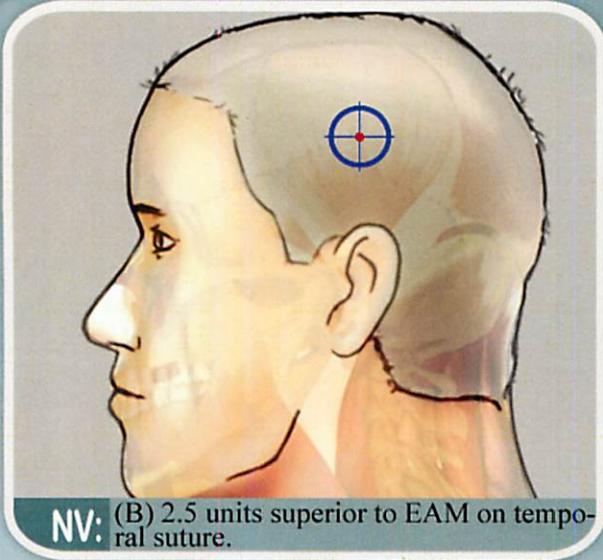
**TEST:**

PATIENT: Supine. Full contralateral rotation of head. Full ipsilateral flexion of the neck. Neck flexion activates lower segments, neck extension activates upper segments.

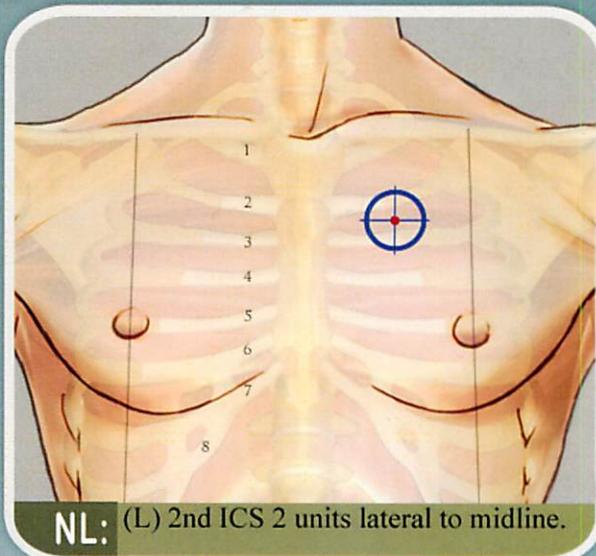


EXAMINER: Head of table. Contact occiput. Contralaterally flex neck through the coronal plane of the body.

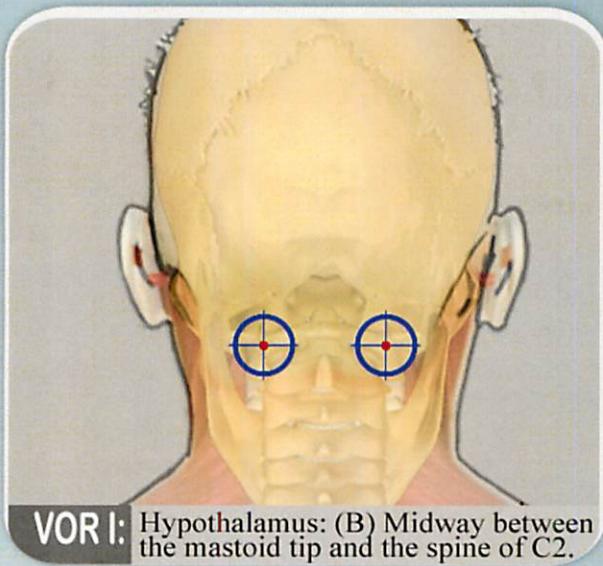




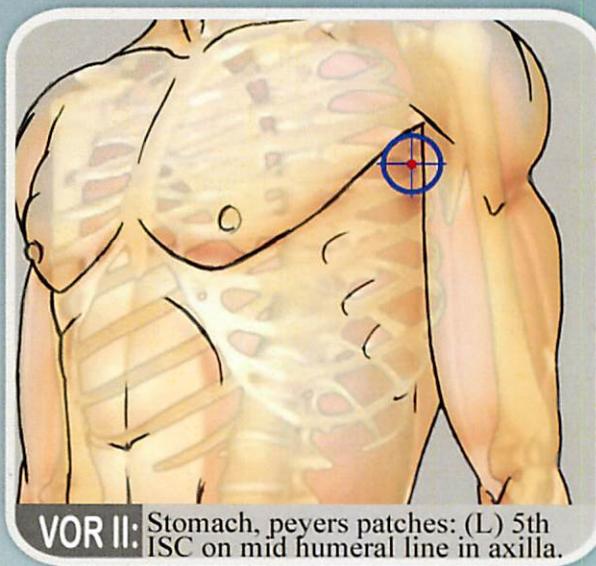
NV: (B) 2.5 units superior to EAM on temporal suture.



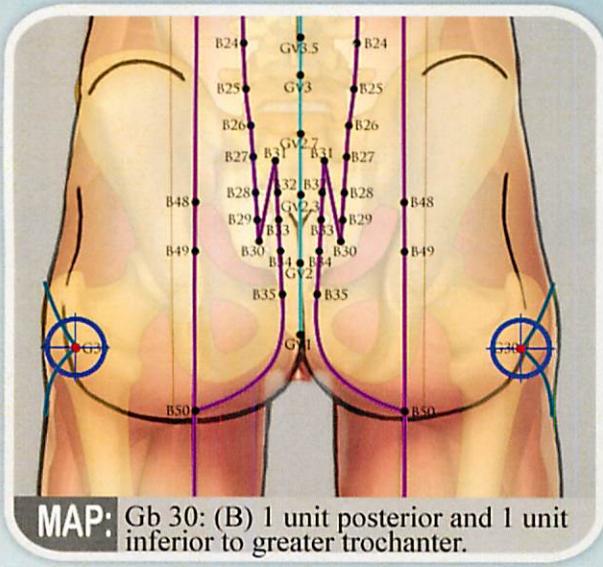
NL: (L) 2nd ICS 2 units lateral to midline.



VOR I: Hypothalamus: (B) Midway between the mastoid tip and the spine of C2.



VOR II: Stomach, peyers patches: (L) 5th ISC on mid humeral line in axilla.



MAP: Gb 30: (B) 1 unit posterior and 1 unit inferior to greater trochanter.

VL: T9 L

LB: T2 L

MM: C2 ?

CRANIAL: MAXILLAE

FOOT: NAVICULAR

NUTRIENT: MAGNESIUM

**ORIGIN:**

Superior margin of the transverse processes of C2-C7.

**INSERTION:**

Inferior margin of the transverse processes of C1-C6.

**FUNCTION:**

Possibly weakly assist with lateral flexion of the cervical vertebrae. They are most likely proprioceptive transducers that monitor the position and movements of the vertebral column and provide feedback that influences the activity of the larger multisegmental muscles of the vertebral column.

**NERVE SUPPLY:**

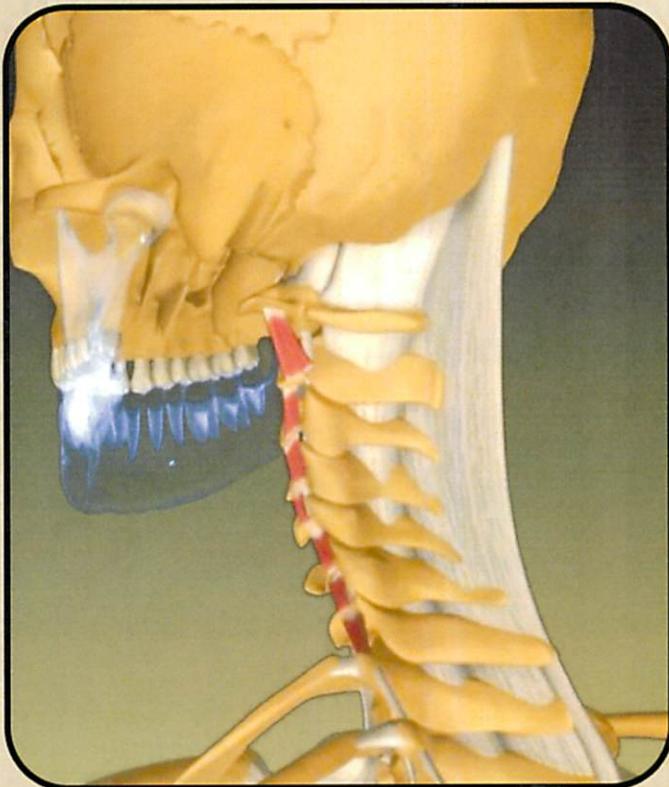
Branches of the ventral rami of cervical spinal nerves (C2 to C8).

**BLOOD SUPPLY:**

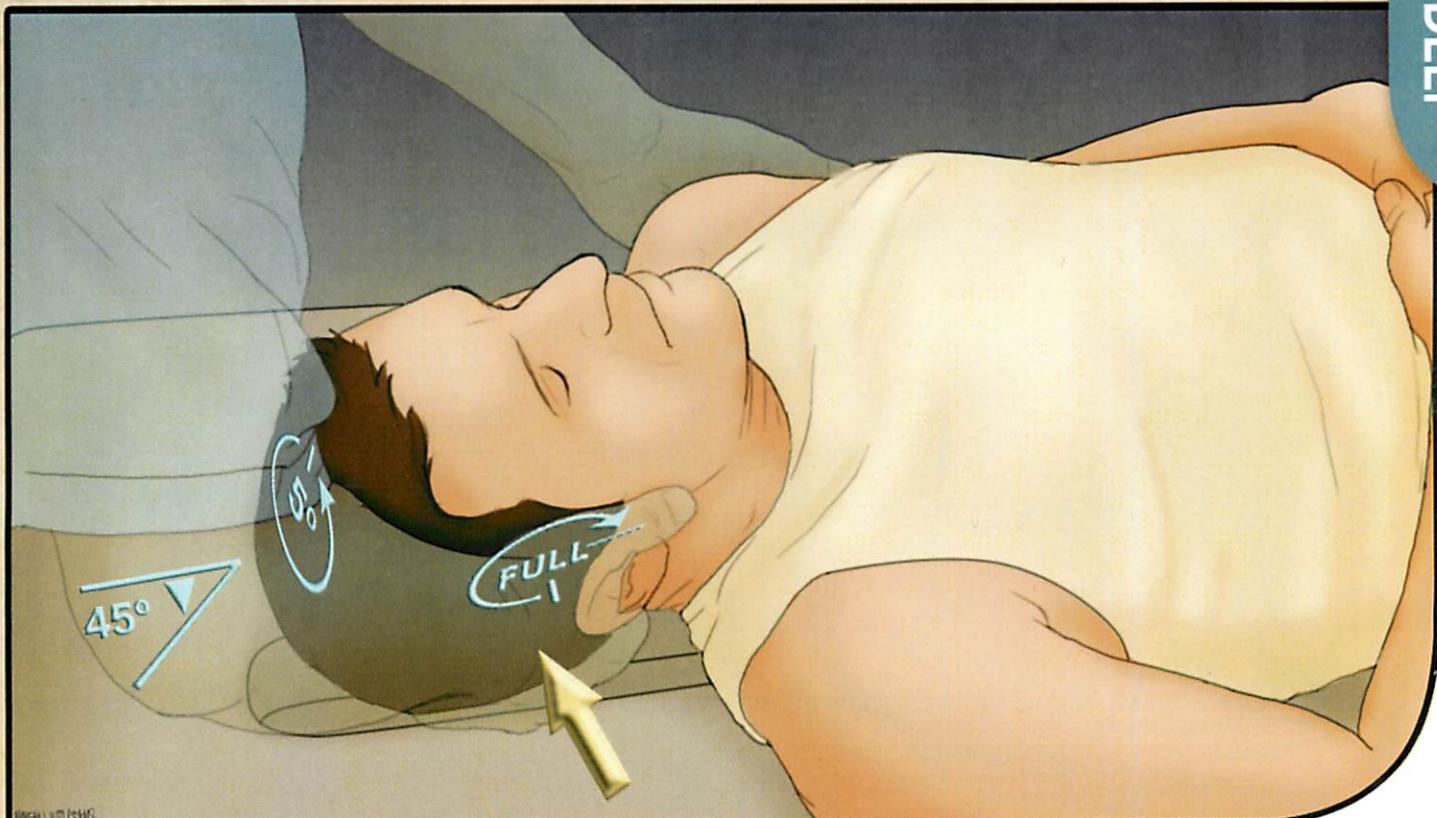
These small muscles receive blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery.

**TEST:**

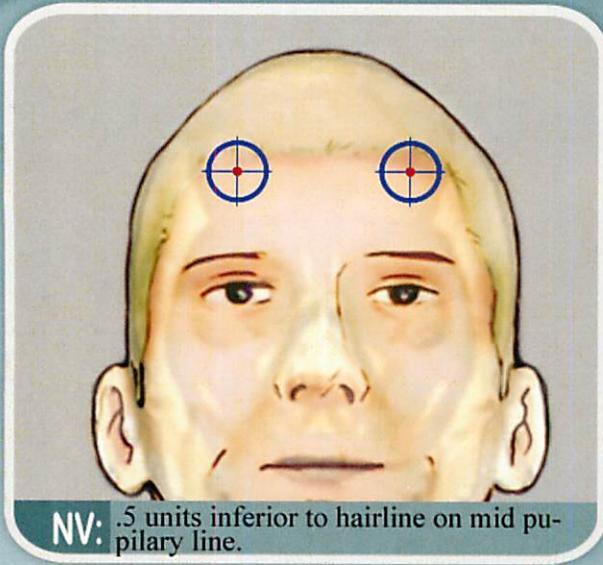
PATIENT: Supine. Rotate head 5° contralateral. Full flexion of head on neck. Full ipsilateral lateral flexion activates lower segments, partial ipsilateral lateral flexion activates upper segments.



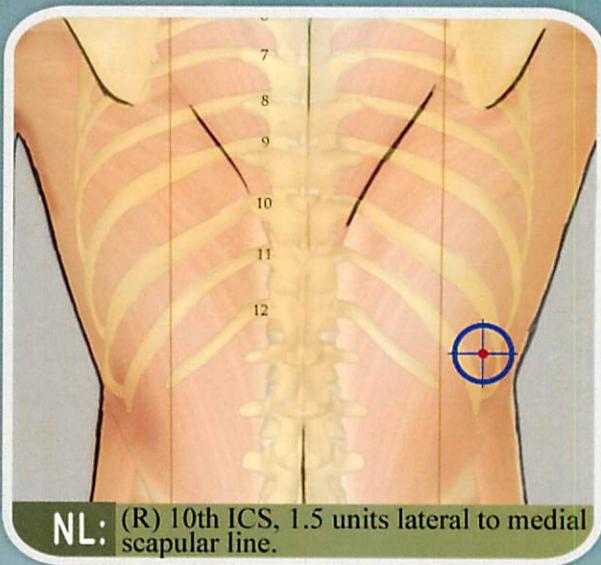
EXAMINER: Head of table. Contact parietal, contralaterally flex neck through coronal plane.



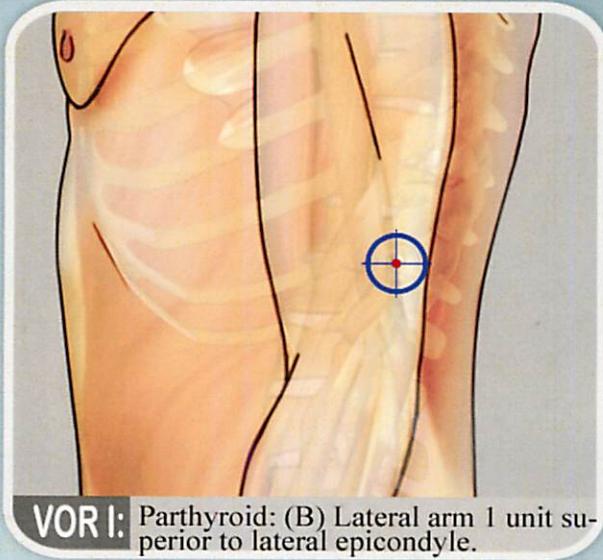
356 INTERTANSVERSARI CERVICIS ANTERIOR:



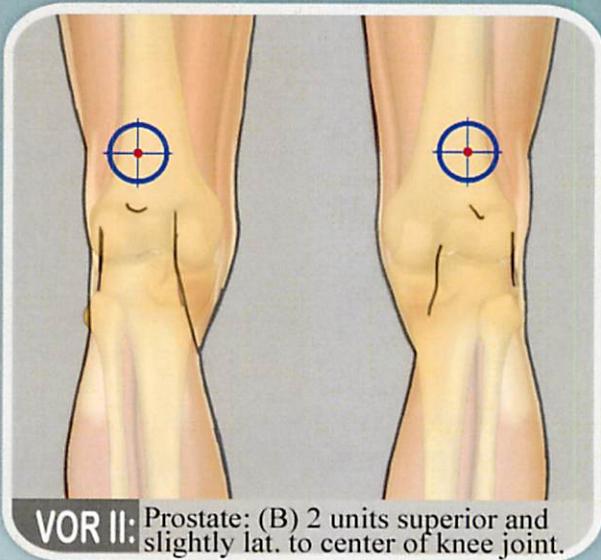
NV: .5 units inferior to hairline on mid pupillary line.



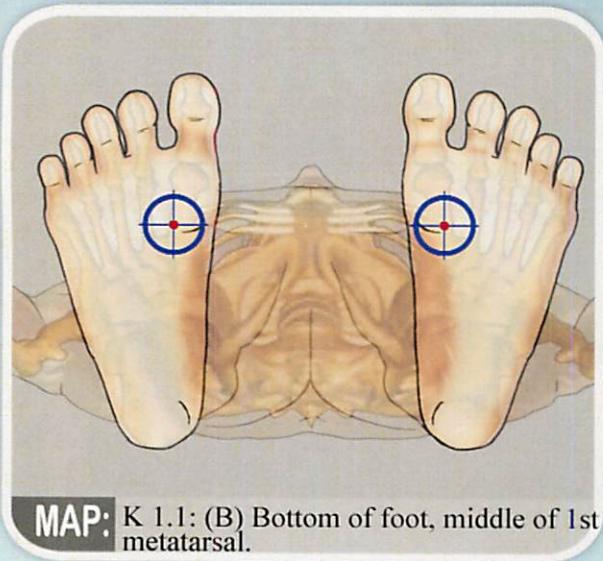
NL: (R) 10th ICS, 1.5 units lateral to medial scapular line.



VOR I: Parathyroid: (B) Lateral arm 1 unit superior to lateral epicondyle.



VOR II: Prostate: (B) 2 units superior and slightly lat. to center of knee joint.



MAP: K 1.1: (B) Bottom of foot, middle of 1st metatarsal.

VL: T3 L
LB: T8L
MM: C2

CRANIAL: ZYGOMA

FOOT: TALUS

NUTRIENT: VITAMIN C

**ORIGIN:**

Superior margin of the transverse processes of C2-7.

**INSERTION:**

Inferior margin of the transverse processes of C3-T1.

**FUNCTION:**

Possibly weakly assist with lateral flexion of the cervical vertebrae. They are most likely proprioceptive transducers that monitor the position and movements of the vertebral column and provide feedback that influences the activity of the larger multisegmental muscles of the vertebral column.

**NERVE SUPPLY:**

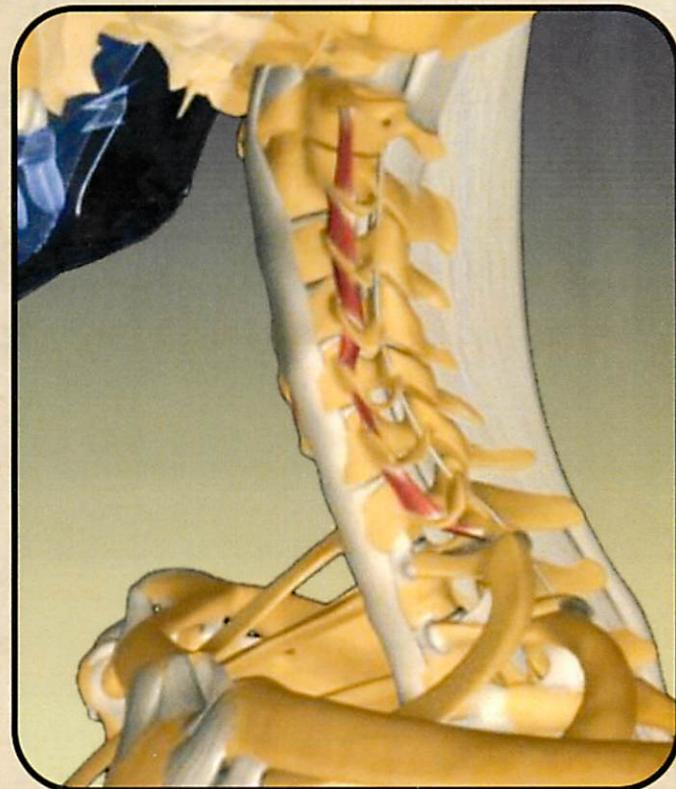
Branches of the ventral rami of cervical spinal nerves (C2 to C8).

**BLOOD SUPPLY:**

These small muscles receive blood from the ascending cervical artery, which is a small branch of the inferior thyroid artery from the thyrocervical trunk of the subclavian artery.

**TEST:**

PATIENT: Supine. Rotate head 5° ipsilateral. Full flexion of head on neck. Full ipsilateral lateral flexion activates lower segments, partial ipsilateral lateral flexion activates upper segments.



EXAMINER: Head of table. Contact parietal, contralaterally flex neck through coronal plane.



