Osteopathic Considerations for Sinus & Allergy

Juanita Brown, DO

Assistant Professor of Osteopathic Manipulative Medicine

LMU DeBusk College of Osteopathic Medicine

Harrogate, TN

Disclosure

- Neither I, nor an immediate family member (parent, sibling, spouse, partner, or child) has any financial relationship with or interest in any commercial interest connected with this presentation.

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Objectives

1. Describe the 3 major anatomical systems used when formulating a basic osteopathic treatment plan.
2. Describe an osteopathic treatment plan for a patient with sinus related dysfunction.
3. Demonstrate an osteopathic treatment plan for a patient with sinus related dysfunction.

Principles of Osteopathy

The body is a unit

Structure and function are inter-related

The body is capable of self healing and self regulation

Rational treatment is based on these principles

http://www.osteopathic.org/inside-aoa/about/leadership/Pages/tenets-of-osteopathic-medicine.aspx

Core Principles

Disease involves derangement of one or more of the following:

Sympathetic Nervous System

Parasympathetic Nervous System

Lymphatic System

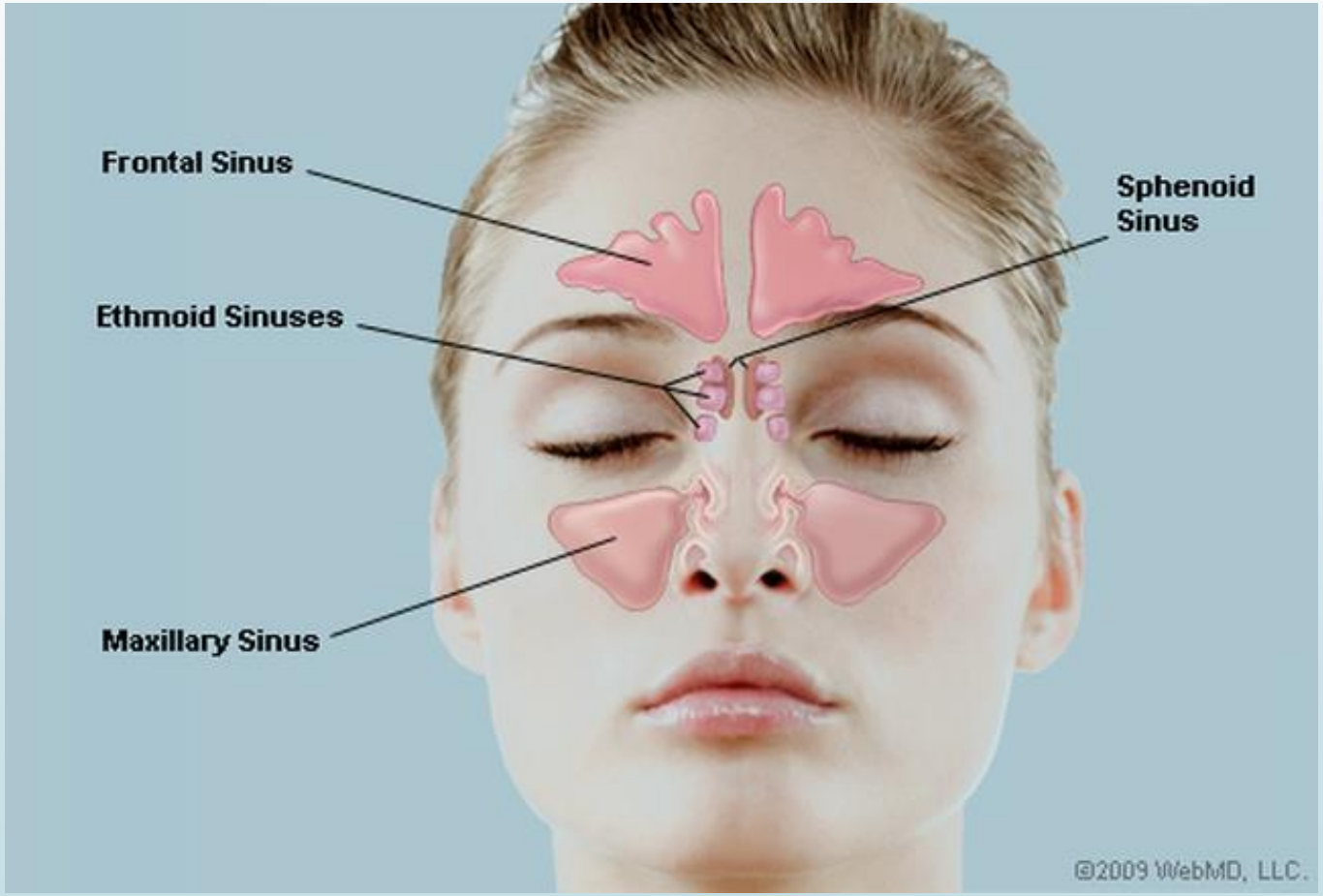
Circulatory System

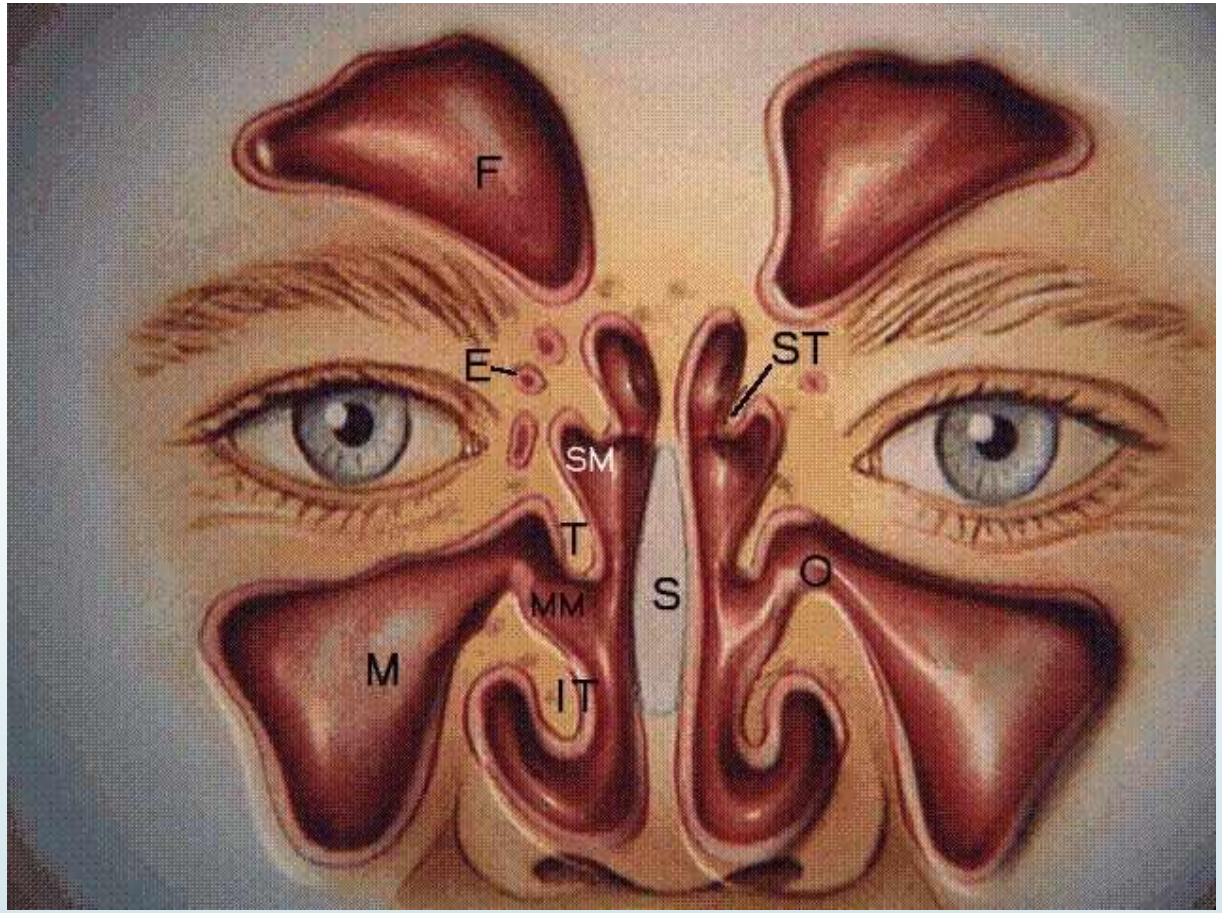
Musculoskeletal System

http://www.aocoohns.org/wp-content/uploads/2014/09/44cea9bd7df26b7b4d0500410b5f4939.pdf

Anatomy

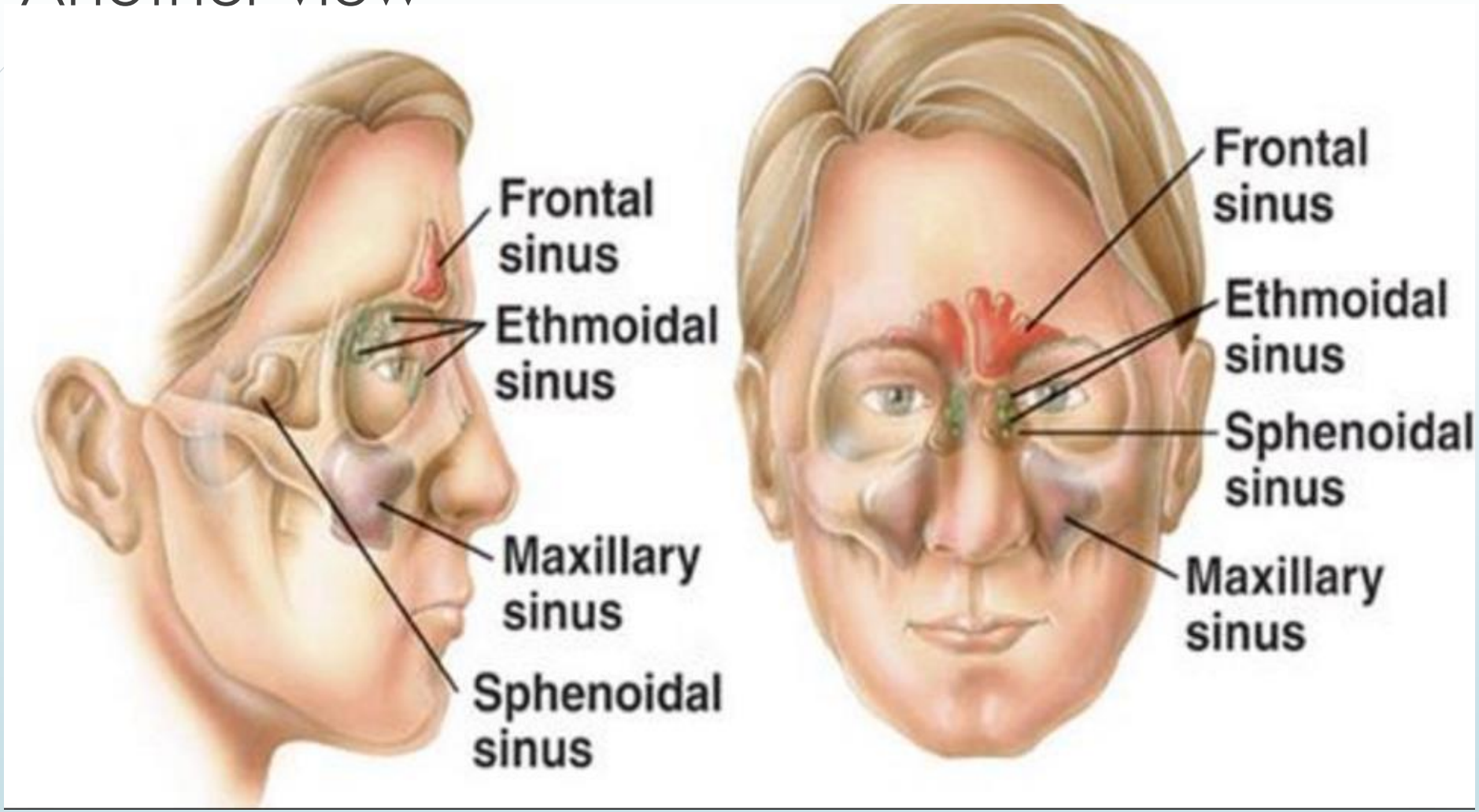
Facial Sinus Locations





- **LEGEND: F - Frontal sinuses, E - Ethmoid sinuses, M - Maxillary sinuses, O - Maxillary sinus ostium, SS - Sphenoid sinus ST- Superior turbinate, T - Middle turbinate, IT- Inferior turbinate, SM- Superior meatus, MM- Middle meatus, SR - Sphenoethmoidal recess, S- Septum, ET - Eustachian tube orifice, A - Adenoids .** Courtesy of Astra Pharmaceuticals

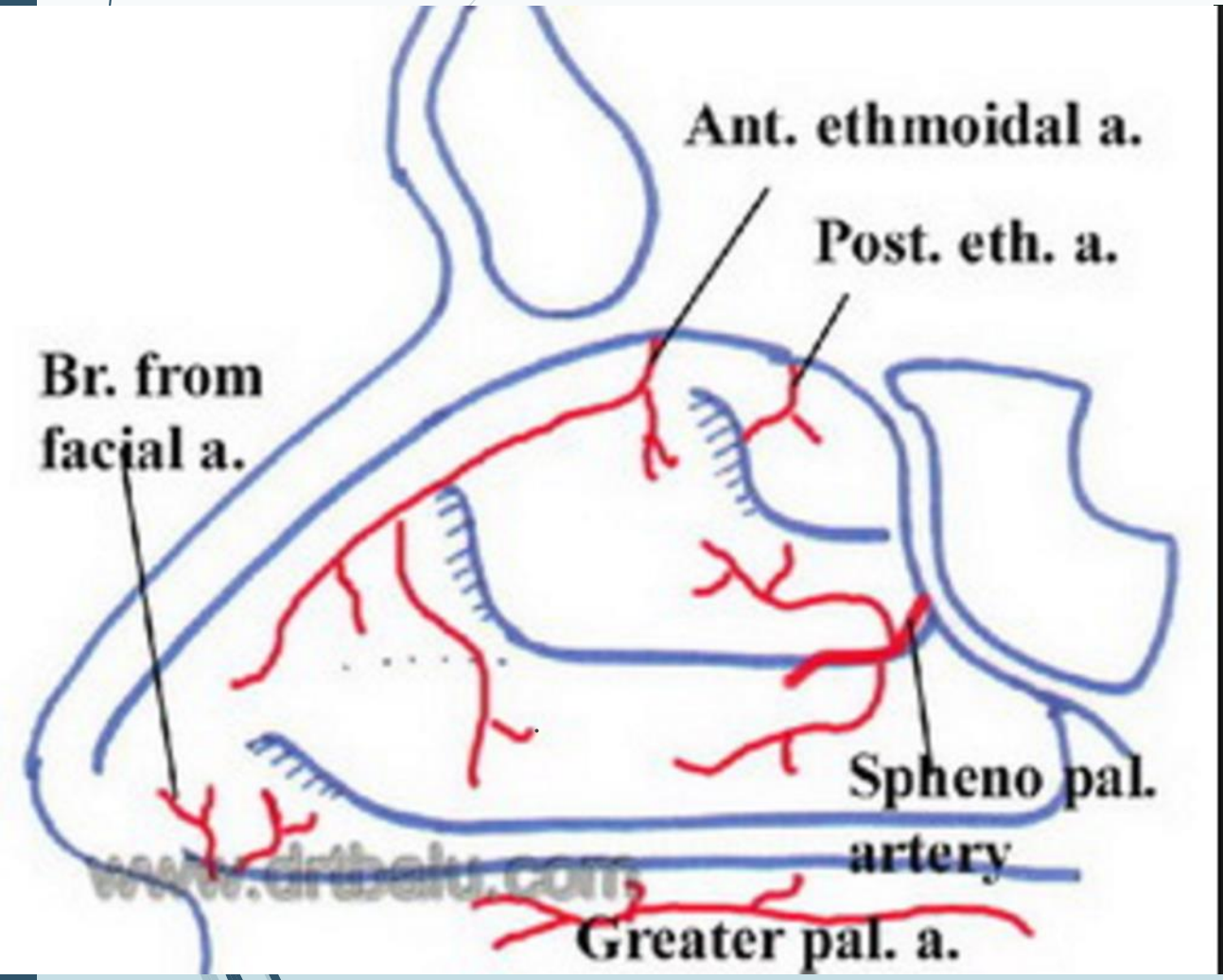
Another view

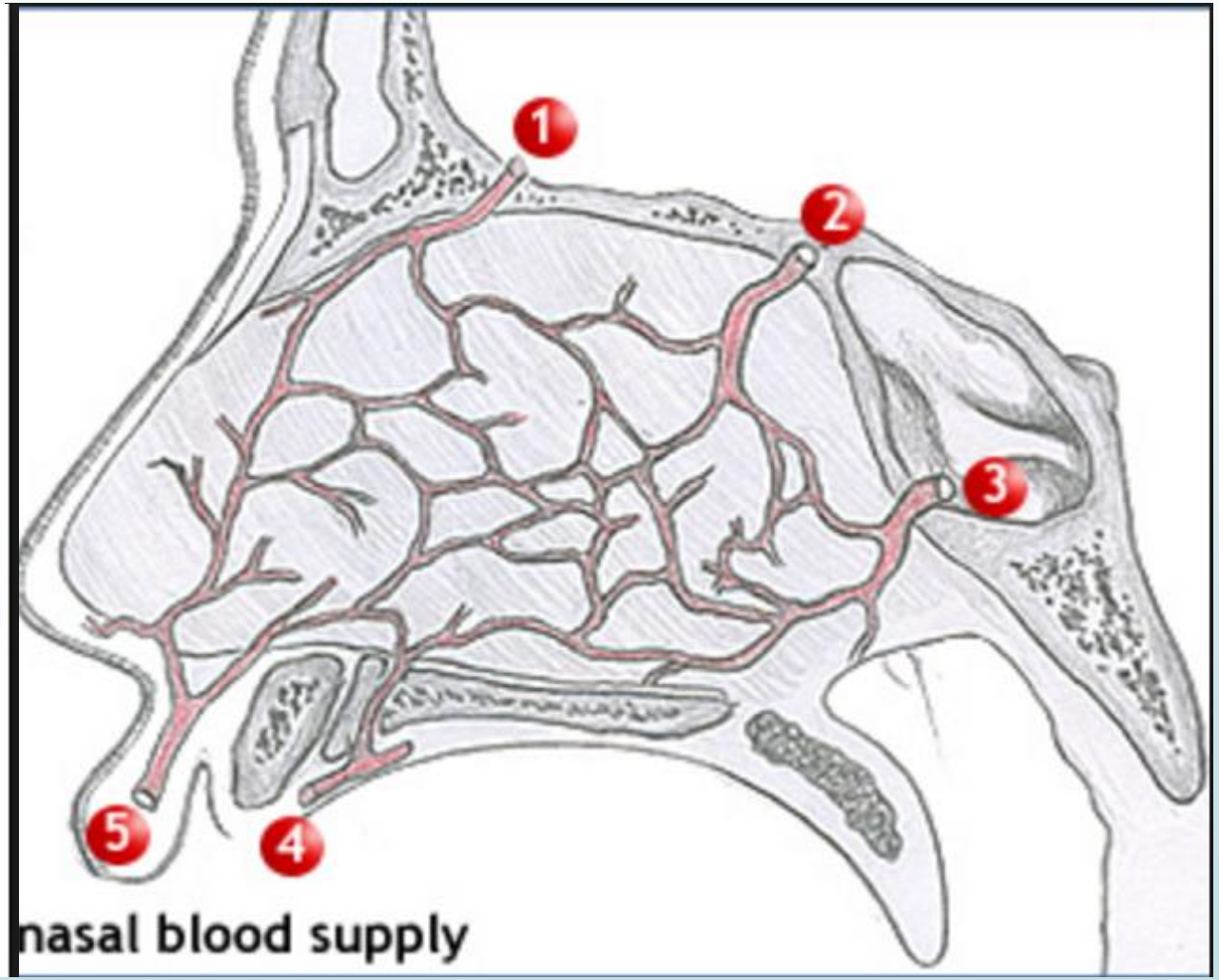


images of sinuses in head - Google Search

Arteries and veins both become dysfunctional

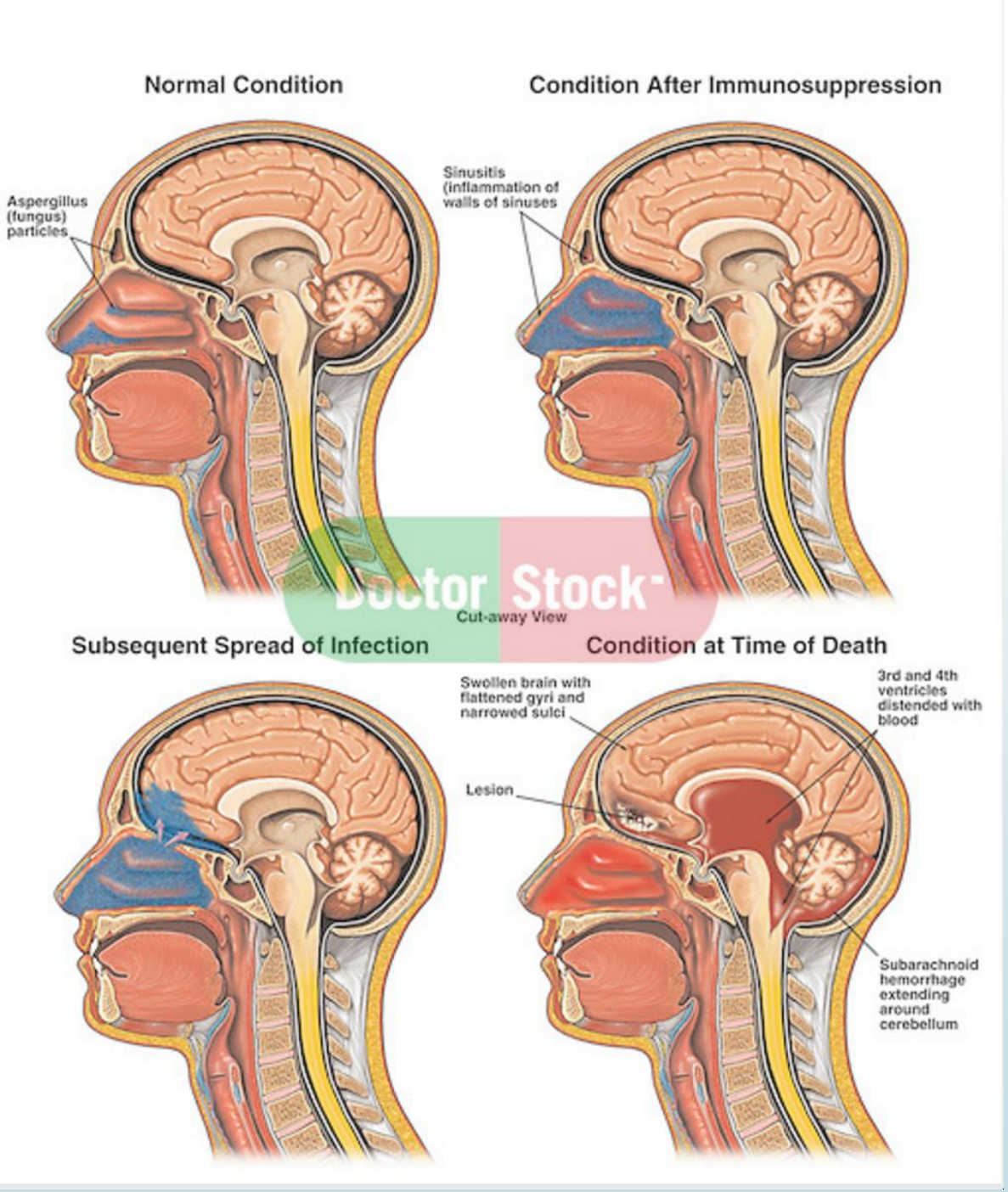
blood supply to sinuses images - Google Search





Why We Care

Spread of Sinus Infection into the Brain, Resulting in Brain Edema and Hemorrhage | Doctor Stock



flowing river images free
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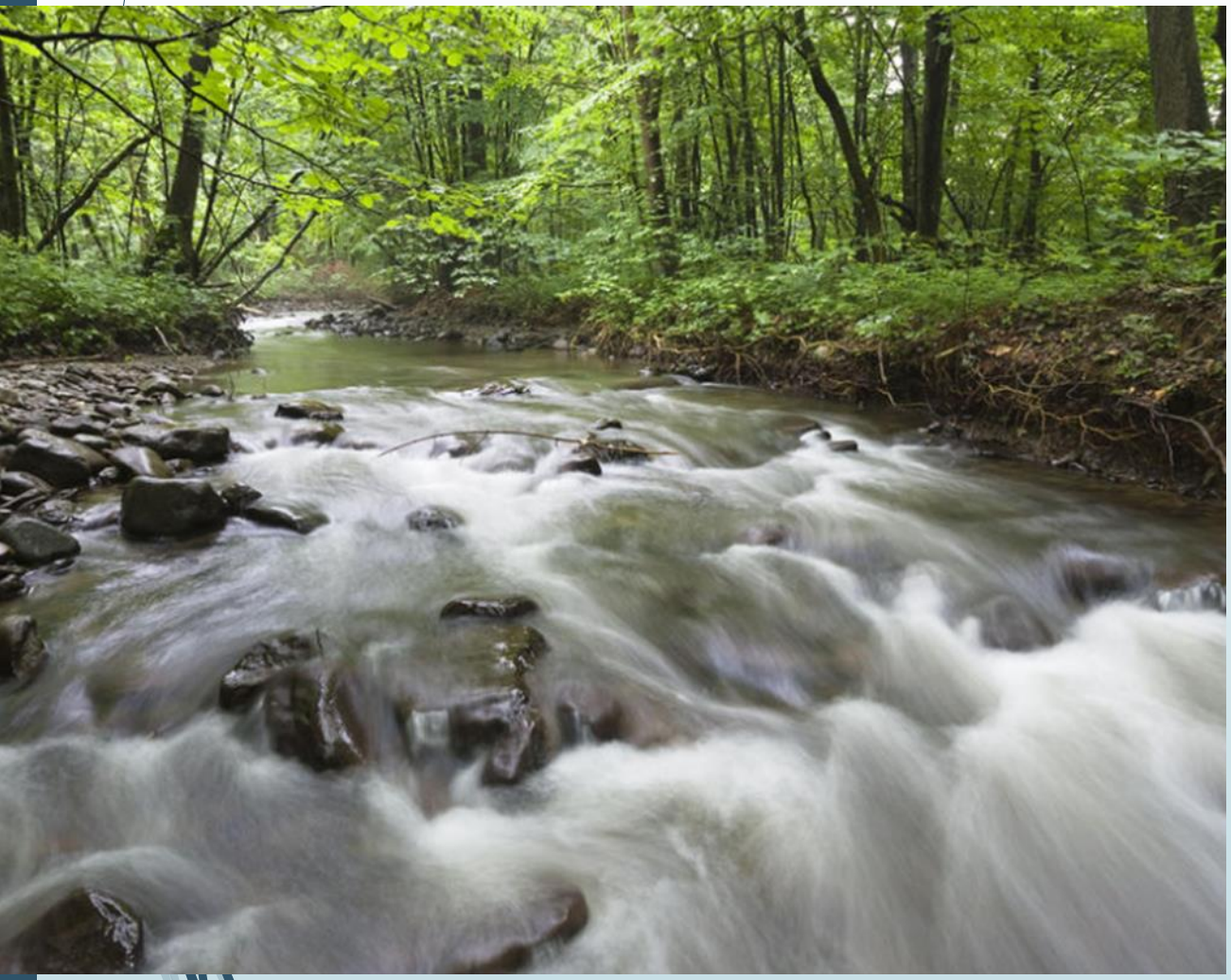
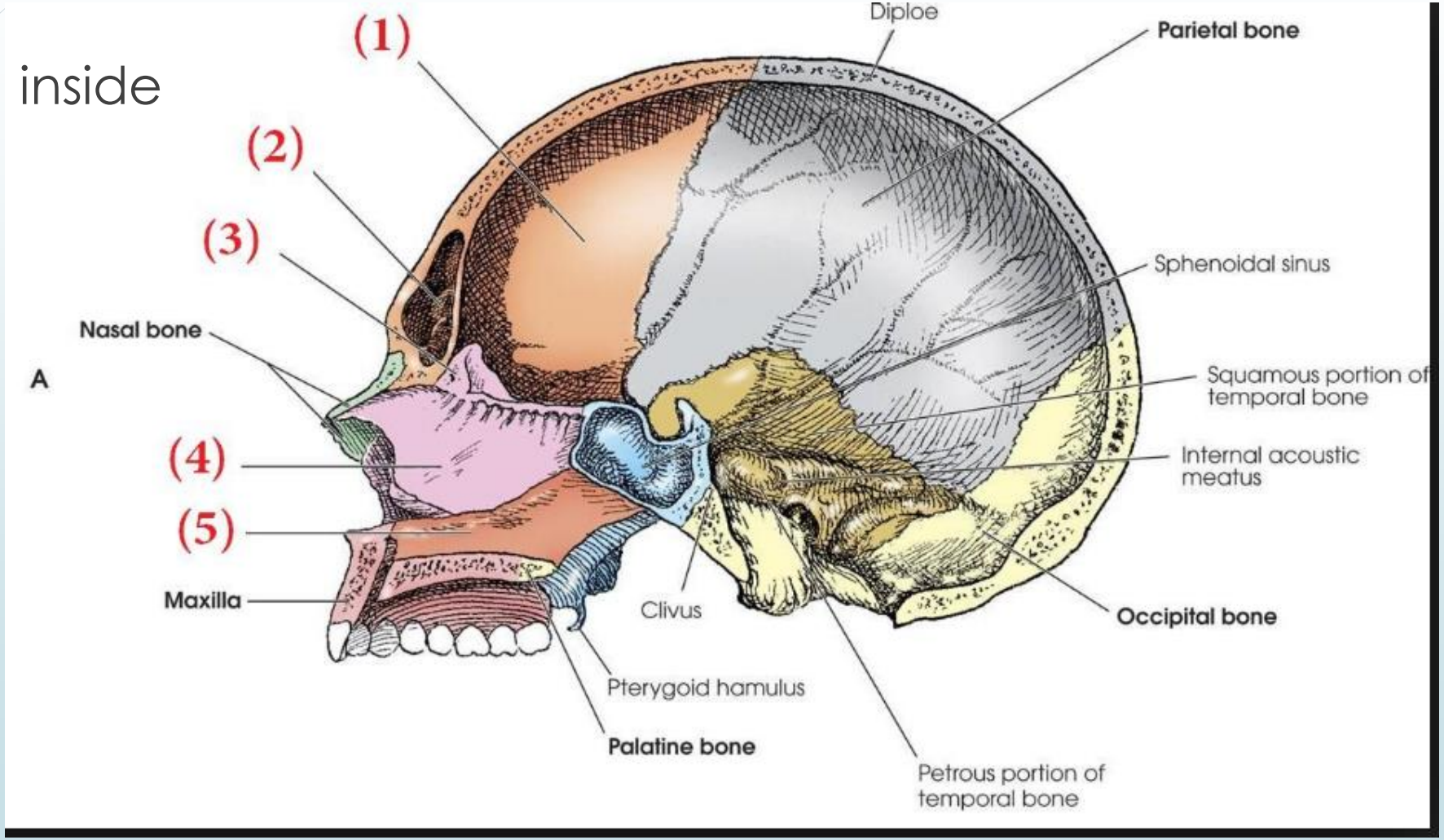


stagnant pond images - Google Search

inside



images of sinuses in head - Google Search

Physiology

Sympathetic Tone in Sinus Disorders

Sympathetic innervation in the sinus causes vasoconstriction which:

Increases venous congestion

Lymphatic congestion

Thickens mucous

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html

Sympathetic Tone in Sinus Disorders

Sympathetic preganglionic nerve fibers leave the upper thoracic spinal cord and traverse white rami communicans in that region.

Then, ascend the cervical sympathetic chain and synapse in the superior cervical sympathetic ganglion.

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html

Parasympathetic Tone

Parasympathetic innervation in sinus causes vasodilation and increases secretions

Thins secretions

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html

Parasympathetic Tone In Sinus Disorders

Parasympathetic preganglionic nerve fibers to the nose leave the brain with the facial nerve, pass through the greater petrosal nerve and the nerve of the pterygoid canal to reach the pterygopalatine ganglion, where they synapse.

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html

Alterations in Lymphatic Drainage

Lymphatic congestion leads to:

Lower immunity

Inflammation

Accumulation of particulates

http://www.aocoohns.org/wp-content/uploads/2014/09/44cea9bd7df26b7b4d0500410b5f4939.pdf

Alterations in Circulatory Flow

90% of the venous flow from the head exits the skull via the jugular foramen

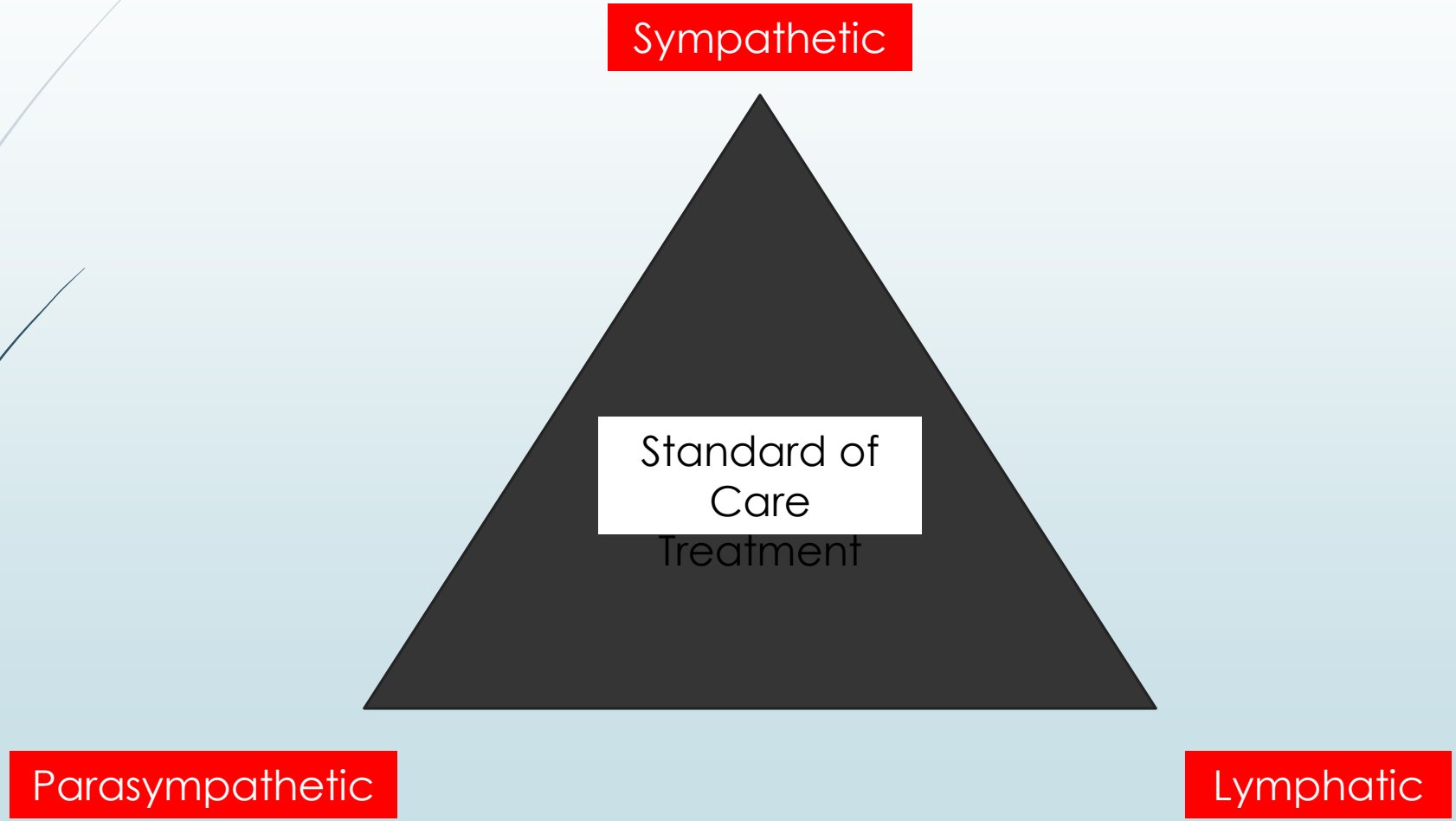
Passive congestion is common in sinus disorders

Fluids also pass through the anterior neck fascia into the supraclavicular fossa and into the chest

http://www.aocoohns.org/wp-content/uploads/2014/09/44cea9bd7df26b7b4d0500410b5f4939.pdf

Treatment

How Osteopathic Principles Can Be Incorporated in Practice.



By Modification of Sympathetic Tone

Thoracic Paraspinal Inhibition:

Helps to normalize sympathetic tone

Reduces facilitation

Helps with drainage of the head and neck

Modification of Sympathetic Tone

Cervical Articulation:

Special Attention to C2

Helps to normalize sympathetic tone and facilitates drainage of the head/sinuses

Modification of Parasympathetic Tone

OA Decompression:

Also known as “Killer Fingers”

Helps normalize parasympathetic tone
Helps facilitate drainage from the head
Releases posterior cervical fascia

Numerous Osteopathic Manipulative Medicine Texts

Modification of Lymphatic Flow

Thoracic Inlet Release:

Normalizes sympathetic tone

Helps release anterior cervical fascia

Improves circulation to and from the head

By Nerve Inhibition

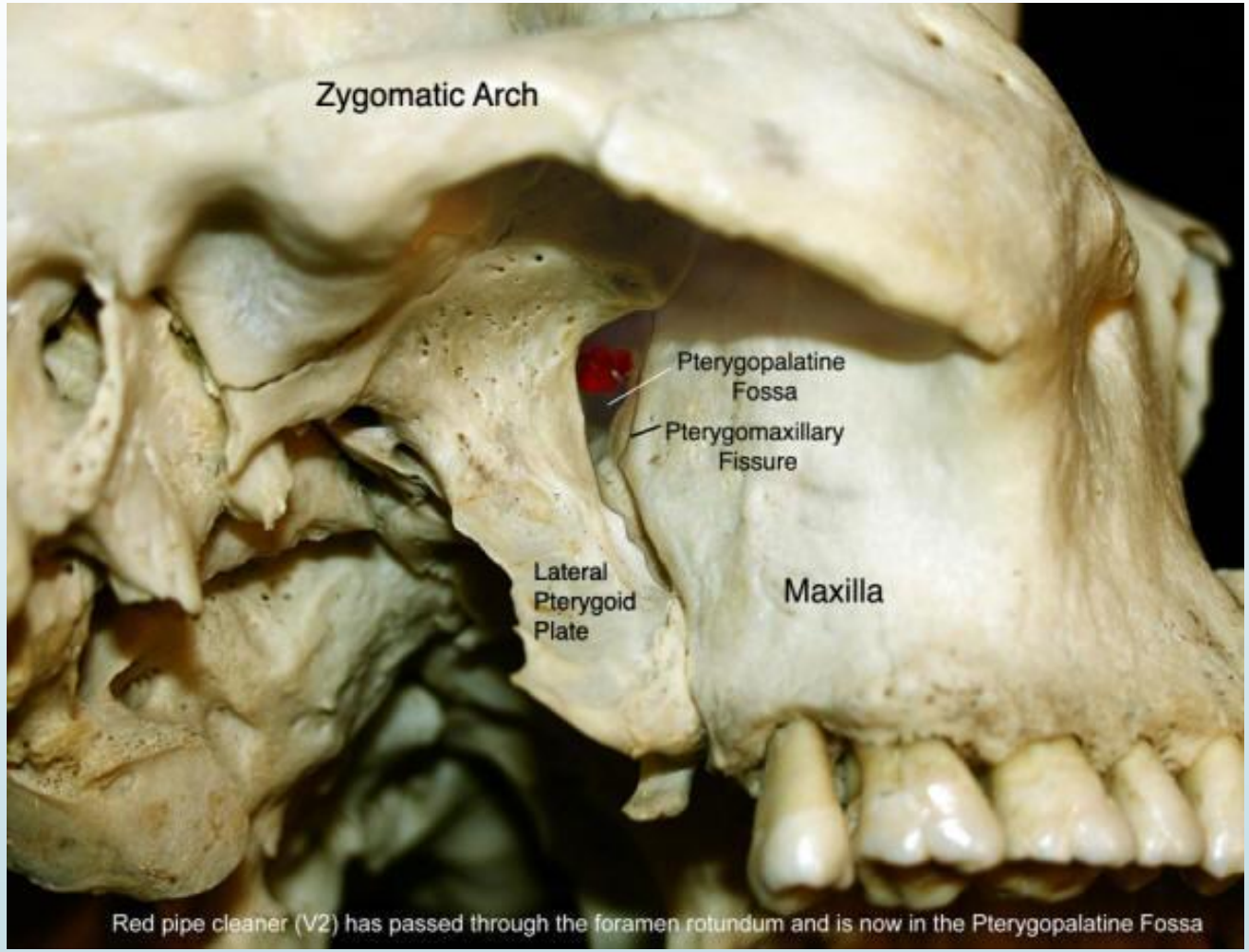
The nerves for the posterior and larger portion of the nasal cavity come from branches of the pterygopalatine ganglion that are derived from the maxillary nerve.

The chief sympathetic (vasoconstrictor) and parasympathetic (vasodilator and secretory) innervation of the nasal cavity follow nerve branches arising in the region of the pterygopalatine ganglion, but

Some sympathetic fibers are carried along the walls of arteries.

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html

Pterygopalatine Ganglion



http://pure-dental.blogspot.com/2012_03_01_archive.html

Procedures

Basic Procedures

OA Decompression

Thoracic Inlet Release

Thoracic Paraspinal Inhibition (Rib Raising)

Lymphatic Drainage

Cervical Articulation

Pterygopalatine Ganglion

Atlanto-occipital release

image of back of head - Google Search

Starting position at the head for lymph drainage

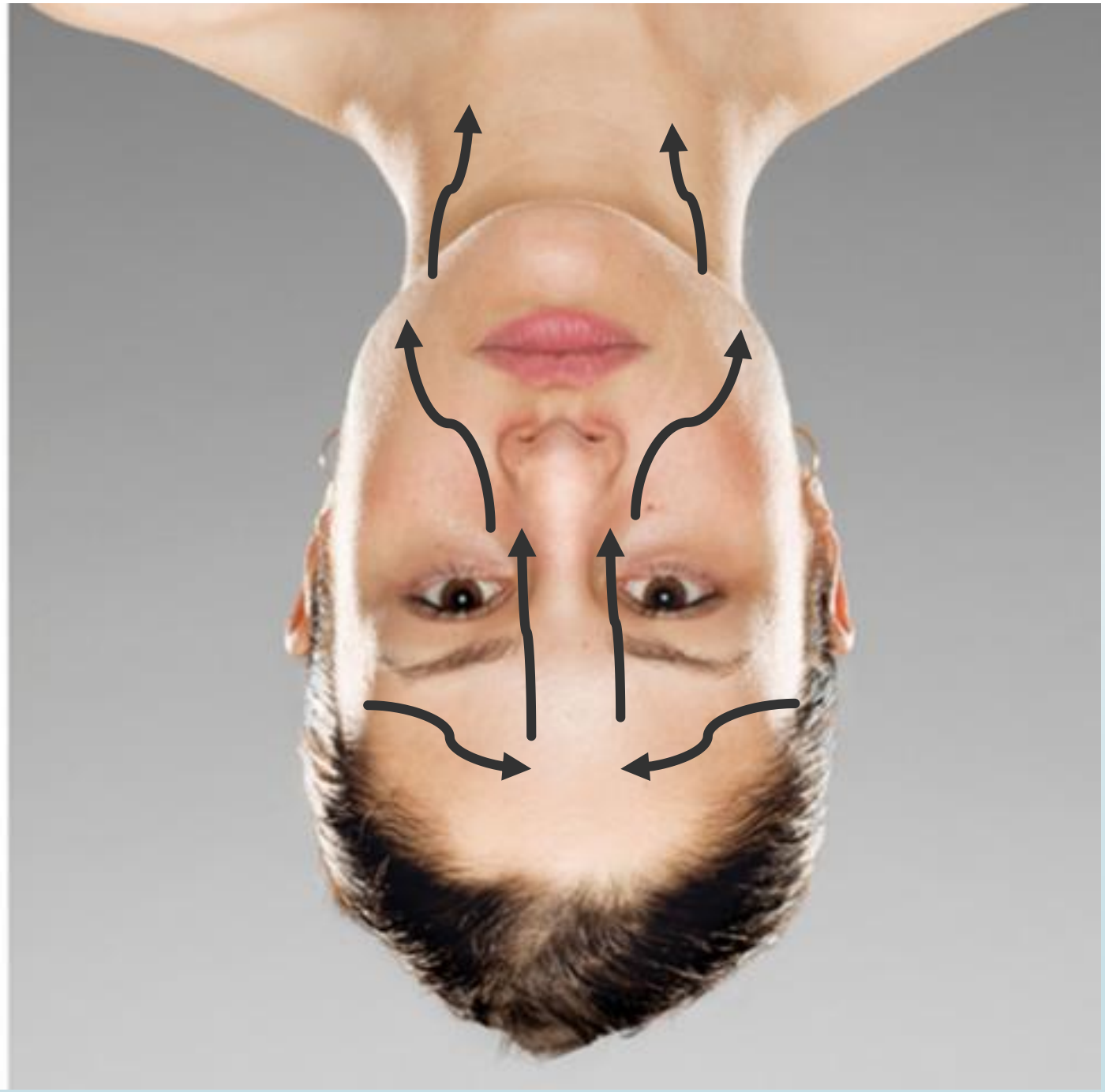
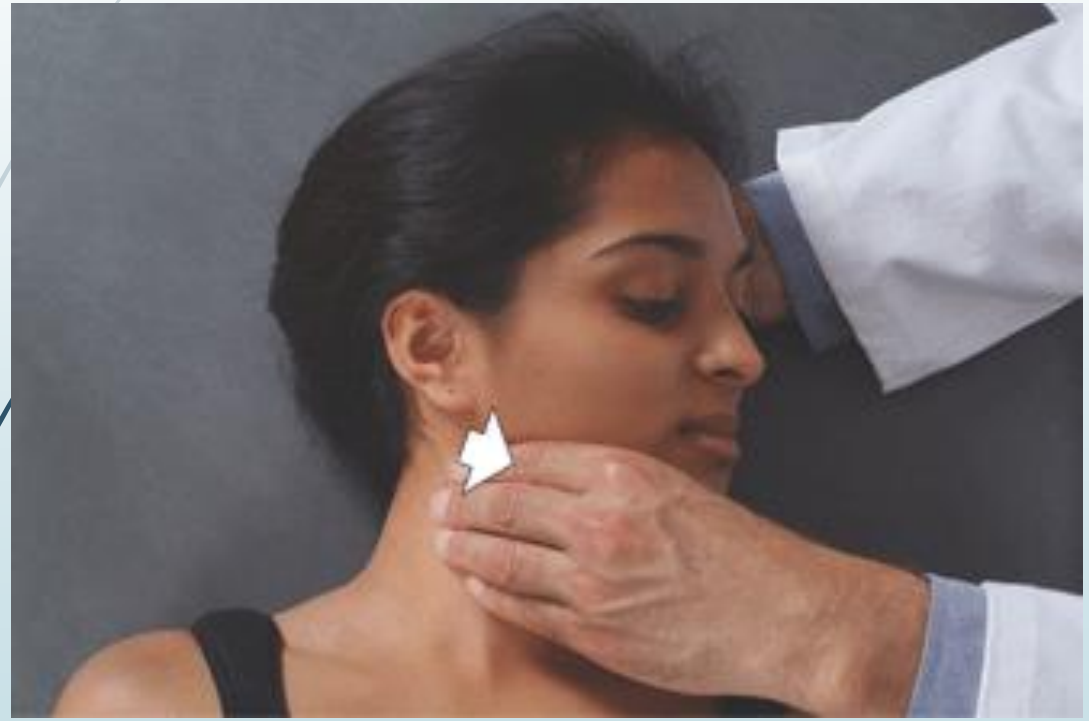
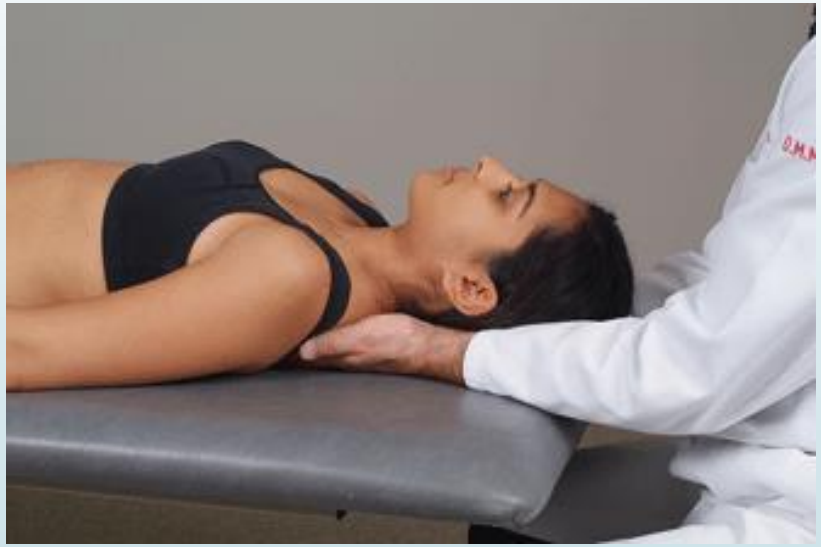


image of faces - Google Search





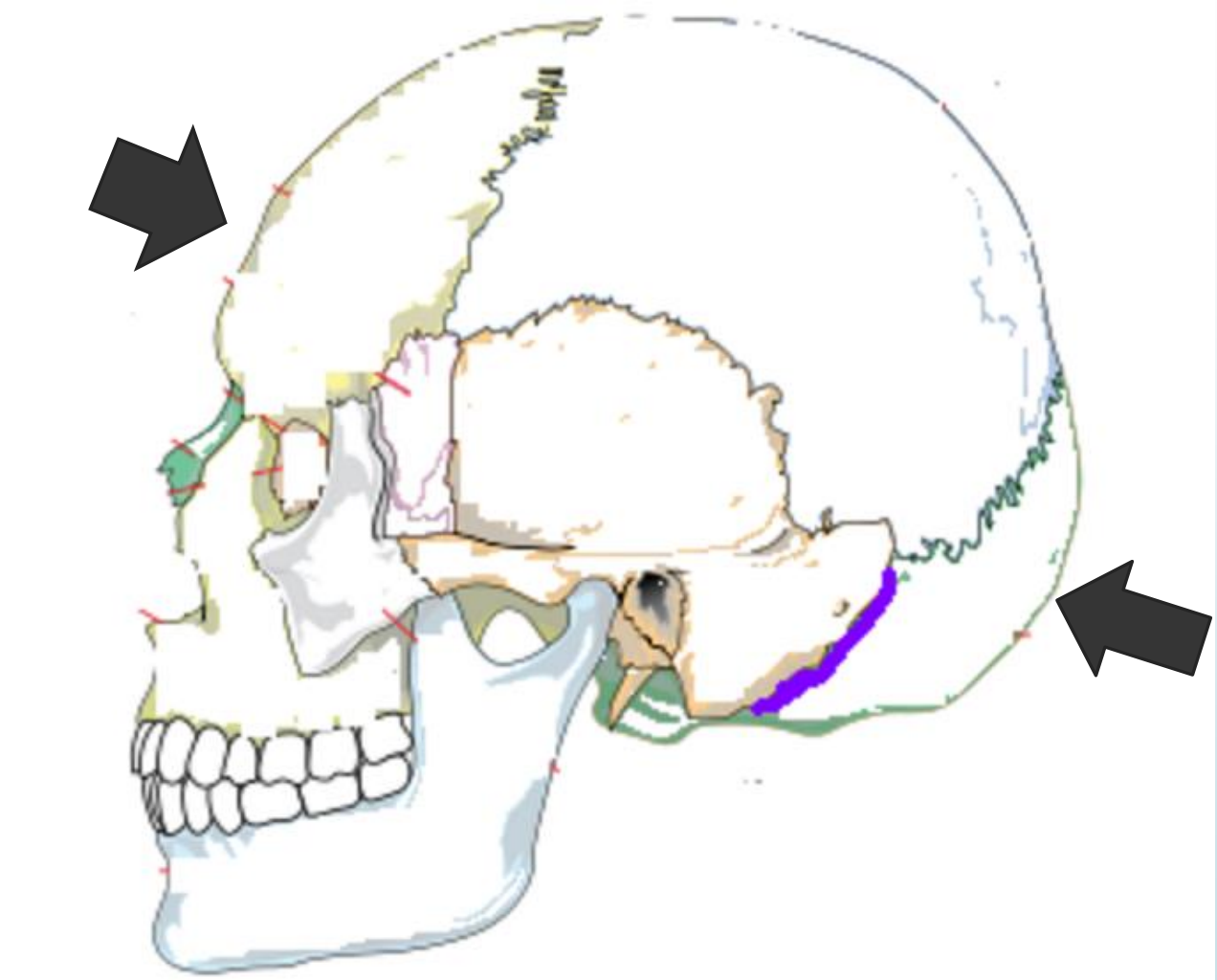
Freeing the nasal bones

image of faces - Google Search

Freeing the nasal bones

image of faces - Google Search

Anterior / posterior compression



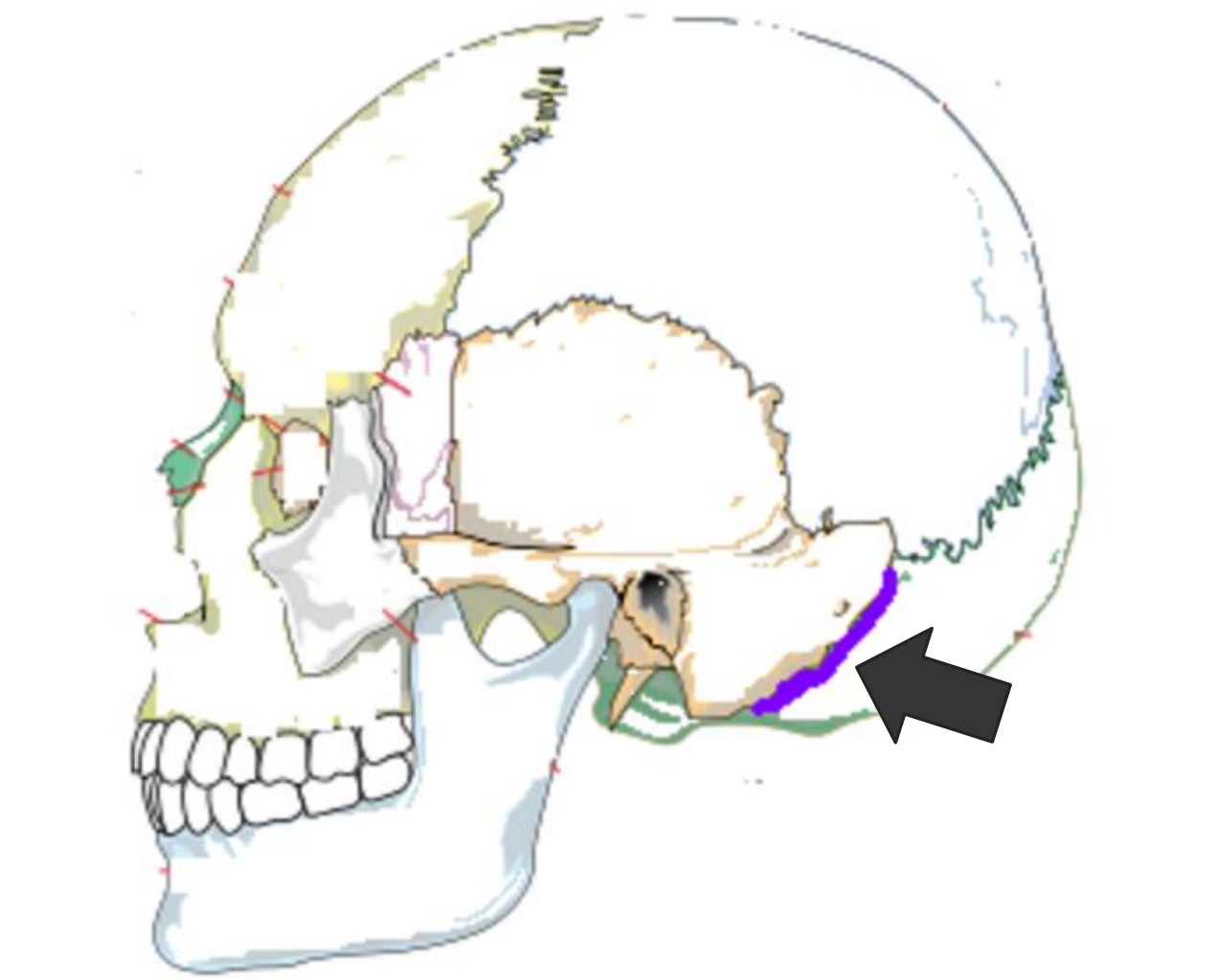
occipitomastoid suture - Google Search

Add compression slowly and remove it slowly

Anterior/Posterior Compression

image of faces - Google Search

Locate the Occipitomastoid Suture



occipitomastoid suture - Google Search

Compression of the 4th ventricle- Thumbs on the occiput behind the suture

Hand position for CV 4

Easiest to have patient lift head and set it down on your hands

Follow the head in and resist it moving out for 3 minutes

Billing and Coding

Bill the appropriate E & M code

Add the -25 Modifier

Then bill by the number of regions

98925-98929

Must have documentation of somatic dysfunction

739.0-739.9

https://www.osteopathic.org/inside-aoa/events/omed/omed-presentations/Documents/2014%20OMED%20Presentations/practice-management-feely.pdf

Billing and Coding

98925 – 1-2 regions

98926 – 3-4 regions

98927 – 5-6 regions

98928 – 7-8 regions

98929 – 9-10 regions

Billing and Coding

How many regions can you code here?

Thoracic Paraspinal Inhibition

Cervical Articulation

OA Decompression

Thoracic Inlet Release

Pterygopalatine Ganglion

Billing and Coding

5

Thoracic Paraspinal Inhibition

Cervical Articulation

OA Decompression

Thoracic Inlet Release

Pterygopalatine Ganglion

Head

Neck

Thoracic

Upper Extremity

Ribs

Billing and Coding

For a patient with allergies or sinusitis:

Bill appropriate office visit code

Document the presence of somatic dysfunction in the areas you are treating

Document your treatment of those areas and bill the appropriate procedure code

The Journal of the American Osteopathic Association, August 2009, volume 109, 409-413.