Headache Overview

- 20 million patient visits per year
- One of the most common complaints in adults and children
- Cost due to lost work in the USA is approximately 5-17 billion dollars
- Can be acute, recurrent or chronic in nature
- Most common types of headaches are Tension Headaches and Migraine Headaches
Types of Headaches

- There are 14 types of headaches classified by the International Headache Society grouped into three areas: Primary, Secondary and Cranial Neuralgias, Facial Pain and other headaches.

- The Primary Headaches include the most common headaches:
  - Migraine without Aura - ICD-10 G43.0
  - Migraine with Aura - ICD-10 G43.1
  - Tension-Type Headache ICD-10 G44.2
  - Cluster Headaches and other Trigeminal Autonomic Cephalalgias ICD-10 G44.0
The Secondary headaches are headaches which are attributed to other causes which include:
Headaches attributed to disorders of the cranial bone (G44.840), to disorders of the neck (G44.841) and attributed to TMJ disorder (G44.846)
There are other secondary causes which can be viewed on the International Headache Society website
The Cranial Neuralgia headaches include Trigeminal Neuralgia (G50.00), Occipital Neuralgia (G52.80) and others
Serious Causes of Headaches

- Mass Lesion
- Aneurysm
- A-V Malformation
- Hemorrhage
- Temporal Arteritis
Warning Signs

- Abrupt onset of pain or a sudden change in the pattern or severity of the pain
- Neurologic Deficit
- Stiff neck
- Altered Consciousness
- A headache that is progressively worsening
- A headache that disturbs sleep or is present immediately upon awakening
- Fever
- Vomiting that precedes a headache
Mass Lesions

- Include Brain Tumors; Subdural Hematomas
- Displace pain-sensitive structures in the head
- Pain is localized on the side of the lesion
- The pain is progressive and in the same location which increases in duration and severity
- Subtle changes in mental status and focal neurologic deficits
Subarachnoid Hemorrhage

- Described as “The Worst Headache Ever”

Symptoms include:
- Stiff neck
- Transient loss of consciousness, nausea, vomiting
- Photophobia
- Pupillary dilation
- Seizure
Migraine Headaches

- Exact pathophysiology is unknown
- Common causes include:
  Vascular- disordered neurogenic control of craniocerebral circulation where cranial arteries may be affected by trigeminal, vagal and upper cervical nerves which converge in the brainstem in the trigeminal nucleus caudis
  Neurotransmitter- most common being the serotonin receptor (5-HT)
Migraine Headaches

- Common triggers of migraine headaches include
  Stress
  Hormone Fluctuations
  Head Injury
  Fasting
  Vasoactive Substances
  Weather/Temperature
  Certain Foods
Migraine Without Aura

- Formerly know as “common migraine”
- Symptoms include:
  - Rapid onset (pain builds up over a period of 1-2 hours)
  - Unilaterial and localized (but pain may be felt anywhere in the head and neck)
  - Throbbing and Pulsatile in nature which intensifies with movement or physical activity
  - Phonophobia and Photophobia
  - Nausea/Vomiting which may include anorexia, food intolerance and light headedness
Migraine With Aura

- Formerly known as “classic migraine”
- Neurological signs include
  - Visual Disturbances (most common) with the most common disturbance being Scintillating Scotoma
  - Ascending numbness or parasthesias
  - Weakness
  - Aphasia
- Symptoms also include those of Migraine without Aura
Tension Headaches

- Most common headache in adults
- Women twice as likely as men to get tension headaches
- Causes include stress, bad posture, anxiety, depression, fatigue, hunger
- Symptoms include:
  - Non-throbbing pressure or tightness
  - Fronto-temporal band with gradual onset
  - Described as a “clamp squeezing the skull”
Other Headaches

- Mixed Headache - combination of muscular and vascular dysfunction with throbbing constant pain with tightness and pressure
- Benign Exertional Headache - Abrupt, severe and of brief duration precipitated by coughing, sneezing, running, sex
- Cluster Headache - Vascular in origin, most common in men with episodic recurrences. Precipitated by alcohol, head and wind exposure. Abrupt, unilateral with rhinorrhea, conjunctival injections, facial sweating, ptosis and eyelid edema
Other Causes of Headaches

- **Somatic Dysfunction**
  - TMJ
  - Sinusitis
  - Trigeminal Neuralgia
  - Glaucoma
  - Medications
  - Hypertension
  - Hormonal
  - Trauma
  - Acute Metabolic Disturbance
Other Causes of Headaches: Somatic Dysfunction

- Cranial somatic dysfunction ICD-10 M99.00
  - Temporal bone dysfunction (internal rotation)
  - Sphenoid bone dysfunction (torsion)
  - Occipitomastoid compression
- Cervical somatic dysfunction ICD-10 M99.01
  - Upper cervical somatic dysfunction- affecting the greater and lesser occipital nerves
  - Dural attachments at the foramen magnum (OA), C2 and C3.
  - Also affected by TMJ
Other Causes of Headaches: Somatic Dysfunction

- Sacral/Pelvis somatic dysfunction ICD-10 M99.04/M99.05
  - Dural attachments at S2
  - Pelvic somatic dysfunction affects the sacrum
- Upper thoracic somatic dysfunction ICD-10 M99.02
  - Increased level of sympathetic tone noted with thoracic somatic dysfunction
  - Decreased blood flow
  - Vasodilation of vessels
Other Causes of Headaches: TMJ

- The temperomandibular joint is a hinge that connects the mandible to the temporal bones of the skull.
- The prime movers of the TMJ are the temporalis, masseter, medial pterygoid and lateral pterygoid muscles.
- TMJ supporting structures include the articular disk, joint capsule, and four ligaments (lateral ligament, sphenomanibibular ligament, stylomandibular ligament, and stylohyoid ligament).
- The POINT of this - dysfunction of the TMJ can cause Headaches!
Trigger Points

- Cause pain referral patterns to different parts of the head
- Cervical and thoracic trigger points can be caused and perpetuated by postural decompensation along with somatic dysfunction causing headaches
Diagnosis

- A thorough history and physical examination must be obtained to rule out life threatening causes
- Diagnostic testing should be used as needed
  - Blood tests (ESR for Temporal Arteritis)
  - Imaging studies (X-ray, CT, MRI)
- An osteopathic structural exam should be performed to diagnose somatic dysfunction and other conditions (i.e. trigger points)
Treatment

- **Osteopathic Manipulative Treatment**
  - Must use a whole person approach looking at postural considerations
  - Must address somatic, neurologic, venous and lymphatic considerations
  - For initial pain, use gentle, indirect techniques
  - Use direct techniques as the patient tolerates
OMT Techniques

- Craniosacral
  - OA decompression, CV4
- Indirect techniques
  - Counterstrain, Still’s technique to address somatic dysfunction, tender/trigger points in the cervical and thoracic spine
- Direct Techniques
  - Muscle Energy/HVLA to correct somatic dysfunction
- Intra-oral – masseter, pterygoids, digastric
- Para-nasal sinus drainage techniques
OMT Billing

- 98925 – OMT 1-2 regions
- 98926 – OMT 3-4 regions
- 98927 – OMT 5-6 regions
- 98928 – OMT 7-8 regions
- 98929 – OMT 9+ regions (flagged by MC)