The Problem:
• Overactive pain centers in the brain cause head pain felt as constant pressure
• Overactivity is stimulated by numerous factors:
  - Stress
  - Sleep deprivation
  - Muscle strain in the neck and shoulders
  - Hunger
  - Eye strain
  - Dental problems
  - Intense concentration

Common Symptoms:
• Constant bilateral head or neck pressure
• Squeezing, “band tightening,” “head in a vice”
• Pain can be felt in different places at different times:
  - Temples
  - Scalp
  - Eyes
  - Lower back of head
  - Neck
• Pain is steady and continuous:
  - Hours to days in episodic tension type headache
  - Months to years in chronic tension type headache
What is Chronic Tension Type Headache?

Tension type headache, formerly called tension headache or tension – muscle contraction headache is the most commonly experienced headache. The word “chronic” is used if headaches occur 14 or more days per month for 3 months or more. Pain can center in the scalp, eyes, temples or lower back of the head and is characterized by squeezing like a “band tightening” or like your head is in a vice. Pain is usually felt on both sides of the head and can be continuous – steady - lasting hours, days or longer. Pain is usually moderate, rarely severe, and fluctuates over time. It is one of the few headaches that can occur all day, everyday, for days on end. Somehow, patients are able to sleep. Episodic tension type headache usually lasts 4-6 hours. Chronic tension type headache can last years.

Symptoms that go along with tension type headache are queasiness, although rarely accompanied by vomiting, and sensitivity to bright light or noise – usually not both at the same time. Muscles are often sore to touch – jaw muscles, temporal muscles, scalp and neck muscles.

Common triggers are stress or intense concentration (taking a final exam), hunger, irregular meal times, insufficient sleep and poor ergonomics (sitting in an uncomfortable seat).

Poorly controlled medical conditions such as arthritis, hypertension, diabetes and breathing problems create physiologic stress and promote headache.

Other contributing factors are anxiety, depression, excessive worry and inadequate sleep - too little sleep, or due to a sleep disorder. All increase tension, worsening headache.
Chronic muscle strain worsens tension type headache. Unrecognized causes of muscle strain are abnormal bite (dental occlusive disorder), temporal mandibular joint disorder (TMD), poor posture, heavy or pendulous breasts, and poor ergonomics - poorly designed work station or use of a hand-held telephone. All can strain muscles of the neck, scalp and jaw. Lasting relief comes when conditions causing muscle strain are improved.

Cervicogenic headache, female posture related headache with or without macromastia (heavy breasts) and occipital neuralgia are types of headache that frequently occur with tension type headache. They have specific treatment and must be identified and treated along with the tension type headache for relief to be obtained. Migraine is a frequent companion of tension type headache and it must be identified and concurrently treated to feel better.

When headache becomes chronic, lasting for months, additional hazards develop. Frequent use of prescription or over-the-counter pain medicines (triptans or opiates 8 or more days per month or over-the-counter pain medicines 14 or more days per month) can cause medication overuse headache. Frequent use of any kind of pain reliever - acetaminophen, non-steroidal anti-inflammatories, opiates, triptans or even caffeine - can affect the way your brain processes pain, creating a form of chronic pain syndrome. Escalating use of medicine becomes necessary to control pain. Abrupt discontinuation of the offending medicine results in rebound of headache that can only be relieved by taking the offending medicine again. Withdrawal of pain medicine during sleep triggers pounding headaches in the morning. As pain medicine is taken over the course of the day, headache lessens, and is usually gone by late afternoon or evening, only to return the next morning.
People with migraine and tension type headache are particularly susceptible to medication overuse headache. Treatment of these types of headache is futile until medication overuse headache has been successfully achieved.

An intense management program with abrupt withdrawal of the offending medicine is required. Withdrawal symptoms, including worsening of headache, take two weeks or longer before the brain adjusts back to normal. Once that occurs, headache can be completely eliminated, and migraine and tension type headache restore sensitivity to treatment.

See Medication Overuse Headache for more information.
Sleep and Neck Problems

Prevent excessive neck flexion - chin on chest position. For example, what happens when falling asleep in an airplane seat.

• Sleep with a neck splint
• Place a separate neck splint at each sleep site to remind you to put it on when initially lying down or sitting – before falling asleep. Neck splint should not be worn when up and about.
• Avoid falling asleep in an upright position unless wearing a neck splint while:
  - Riding in a car
  - On an airplane
  - Reading or watching TV in a recliner, chair or sofa
  - Watching TV or reading in bed

• Avoid sleeping propped up on too many pillows:
  - Use a single comfortable pillow
  - If uncomfortable lying flat with a single pillow, elevate the legs of the head of the bed six inches on blocks to keep your head higher than your feet – you will breathe better
Ergonomics

Reduce tension on neck, scalp, shoulders and back. Avoid head forward and chin down position.

At a desk or workbench:

- Use a chair without wheels so you can lean back to support your shoulders without pushing away from the desk
- Avoid elevating arms by placing your keyboard on your lap – or at least at lap level to relax shoulder and neck muscles
- Use a comfortable angled foot rest to bend your knees and hips – it helps relax the long muscles that run up and down your spine
- Use a wireless telephone headset to avoid twisting your neck when using a hand-held telephone – heads up!
- Adjust seating or work bench height to avoid bent-over, head-down position which strains neck and shoulder muscles (for example, when using a sewing machine)

When driving:

- Move car seat closer to the steering wheel
- Adjust seat so it supports your shoulders
- Keep you arms down on the bottom of the wheel
Identify and Eliminate Triggers

Stress
- Problem solve – counseling can be useful

Fatigue
- Avoid insufficient sleep
- Sleep 7-8 hours per night
- Go to bed and get up at the same time every day – even on weekends

Hunger
- Don’t skip meals
- Avoid hunger – plan meals by the clock, not how your stomach feels

Inactivity
- Engage in light exercise
- Walking is best – 20-40 minutes fast walking, four or more times per week

Caffeine
- Too much causes stress and interferes with sleep
- Mix decaffeinated coffee with caffeinated coffee
- Limit caffeinated soft drinks
- NO energy drinks
- Limit or avoid caffeinated analgesics

Avoid Medication Overuse Headache
- Caused by too many analgesics. If you use over-the-counter analgesics, or prescription analgesics 10 or more days per month, you are at risk
- Stop Excedrin, Fioricet, Fiorinal, or other combination medications like them if you use them more than 10 times per month
Aggravating Medical Conditions

Work with your physician to optimize management of chronic medical problems such as hypertension, diabetes, arthritis and lung disease to reduce the stress uncontrolled symptoms put on your body.

Psychiatric disorders

- Work with your physician to optimize treatment of mood disorder, anxiety and/or excessive worry. You will find that headache, sleep, depression/anxiety and worry all travel together. All are better when feeling well, all are worse when feeling unwell

Sleep

- Avoid insufficient sleep – your body needs 7-8 hours per night
- Treat sleep disorders, such as insomnia, snoring and restless legs; if present-ask your physician for treatment advice

Dental problems

- Untreated dental problems can cause spasm in chewing muscles and neck muscles that cause or aggravate headache
- Seek help from your dentist for:
  - TMJ – problems with your jaw joint
  - Dental occlusive problems – malaligned bite

Treat other headache conditions

- Cervicogenic headache - which comes from neck problems
- Posture related headache with or without heavy pendulous breasts – causes chronic neck and shoulder pain and headaches
- Occipital neuralgia – irritation of the occipital nerve at the junction of the spine and lower back area of your head – causes headache and sharp jolting nerve pains
- Migraine – a heritable headache condition different from tension type headache with specific treatment
- Medication overuse headache – caused by overuse of medicine attempting to treat migraine or tension type headache. It won’t go away until the offending medicine is discontinued.

See treatment sections for other headache types in your ABIS Headache Report
Muscle Pain
- Apply ice or heat to painful muscles
- When sleeping in bed elevate knees on pillows to relax the long muscles that run up and down your spine

Medicine
- Use anti-inflammatories and over the counter analgesics

Acute treatment of Tension Type Headache

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dose</th>
<th>Side Effects</th>
<th>Contraindications (do not use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>500-1000 mg</td>
<td>Liver damage</td>
<td>Liver disease</td>
</tr>
<tr>
<td>Aspirin (ASA)</td>
<td>650-975 mg</td>
<td>GI upset Bleeding</td>
<td>GI bleeding Ulcers Gastritis</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>200-800 mg</td>
<td>GI upset Bleeding Edema Renal damage</td>
<td>GI bleeding Gastritis Ulcers Renal disease</td>
</tr>
<tr>
<td>Naproxen</td>
<td>400-800 mg</td>
<td>GI upset Bleeding Edema Renal damage</td>
<td>GI bleeding Ulcers Gastritis Renal disease</td>
</tr>
</tbody>
</table>
What your Healthcare Provider can do

Comprehensive Evaluation
• Detailed history, medical and neurologic examination
• The Headache Analyzer™ to provide more in depth diagnostic evaluation
• Identification and elimination of triggers
• Identification and treatment of medical conditions aggravating headache

Imaging & Testing
• MRI
• CT
• Angiography
• Laboratory tests
• Lumbar puncture

Specialist Referrals
• Neurologist
• Neurosurgeon
• Sleep physician
• Dentist
• Physical therapist
• OB-GYN
• Chronic pain physician
• More

Evidence-Based Natural and Pharmacologic Treatments
• Evidence-based natural substances
• Evidence-based prescription and over-the-counter medicines
• Abortive treatment to treat single headache episodes
• Preventative treatment taken on a daily basis to prevent headaches from recurring