SLEEP SMART

J.S. Gillick, MD, MPH

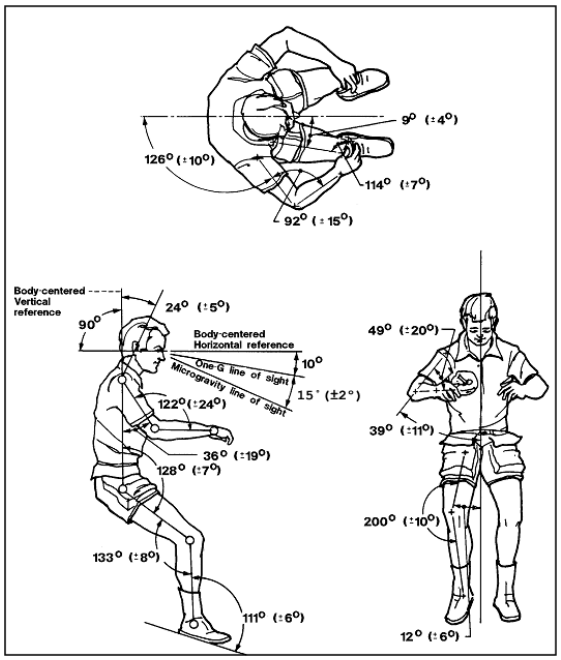
Sleep positions are the frequent, unrecognized causes for overt and background human pain. Sleep-related pain symptoms and dysfunction are present at some level in well over 50% of individuals. The telltale signs and physical confirmations “hide right in plain sight.”

SLEEP-RELATED PAIN

BAD SLEEP POSITIONS

The most common harmful sleep positions are twisted and curled-up (TCU). The most common dysfunctional sleep position is twisted, especially on the side with the chest twisted downward, neck twisted to breathe, with one or the other of the upper extremities upward over the head or under the face with the other down behind the opposite hip. One or both knees are usually flexed or hyper flexed up into the pelvic area (affectionately this is dubbed a low-crawl-like, or LoKu position).

Sustained twisted, curled-up (TCU) positions during sleep spasm, pinch, twist and cut-off circulation to the body's muscles, nerves and other tissues. Sleep positions are the ‘unidentified” sources (causes/ aggravators /perpetuators) of most, idiopathic and “psychogenic” pain disorders that cause great angst. They directly cost individuals and industry millions of productive hours and billions of dollars yearly. They cost the taxpayer hundreds of billions in health care, disability and compensation dollars.



NASA ASTRONAUT NEUTRAL BODY POSTURE

WHAT CAN BE DONE?

Maintenance of sleep position in a Neutral Body Posture (NBP) is protective of the nerves and muscles. NBP sleep position can improve, and often reverse, most of the injuries precipitated and/or maintained by twisted, Low-crawl-Knee-Up (LoKu) or Twisted and/or Curled-Up (TCU), clam-like sleep positions.

Habitual nesting into a NBP position is followed by a slow resolution of many associated painful conditions.

These include headache, jaw pain, shoulder pain and spasm, arm and hand numbness, non-cardiac chest pain, gastric reflux, upper abdominal pain, lower abdominal pain, deepened back and hip pain, hip clicking, numbness in the size, growing pain, knee buckling, sleep disturbances, and lightheadedness.

Changing a sleep habit position into a nested NBP is much easier than imagined, once the process is looked at, understood, thought through and prepared for.

Neutral Body Posture (NBP) is interchangeable with Neutral Balanced Position. There is a scientific precedence for a Neutral Body Posture at zero gravity, a term coined by NASA in forty years of ongoing research. See page 17 for additional information.

TWISTED AND CURLED-UP POSITIONS

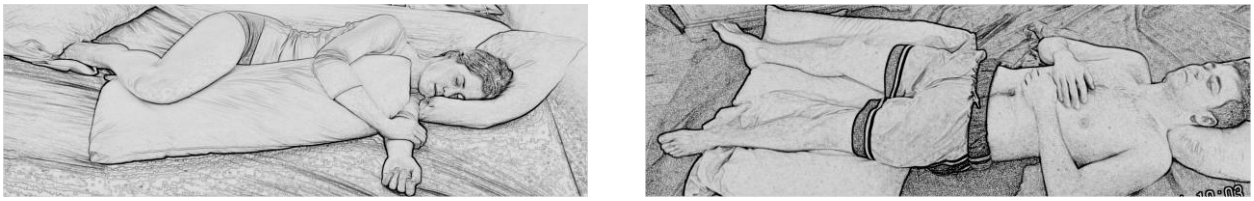
Twisted and/or Curled-Up (TCU) sleep positions cause, contribute to, and maintain many acute and chronic pain conditions: headaches, sleep apnea, jaw pain, tinnitus, eye injuries and acid reflux, nerve pinching in arms and legs, shoulder joint injury and pain, spine injuries through the neck, mid-back and low-back, bladder, groin and abdominal dysfunction, and hip, knee and lower extremity pain, dysfunction and injury.

EXAMPLES OF TCU: TWISTED, CURLED UP POSITION

Twisted Curled-Up (TCU) sleep positions have more than thirty documented, strongly associated sleep injuries. Table 4 lists many of the injuries. These are not caused or worsened by nested Neutral Balanced Posture (NBP).

NEUTRAL BALANCED POSTURE (NBP)

Neutral balanced posture (NBP) sleep positions require proper nesting. They discourage, diminish, or remove the TCU-induced sleep position injuries.



EXAMPLES OF NBS: NEUTRAL BALANCED SLEEP

SLEEP POSITION RULES (ABBREVIATED VERSION)

NEVER ever sleep TCU: Twisted and/or Curled-Up.

ALWAYS sleep NBP: Neutral Body Posture

TABLE 1 SLEEP POSTION RULES: ABBREVIATED		
Area of Body	**Position**	**Yes/No**
Face, Neck	Twisted or bent >20°	No
Chest	Twisted/down	No
Stomach	Twisted/down	No
Pelvis	Twisted/down	No
Elbows relative to lungs	Above shoulders At or behind spine Draped across-chest	No
Knees	Pulled-up >80° Pulled-out (frog-leg) Crossed-over	No
Spine	Twisted Side-bent Flexed Back-extended	No
Area of Body	**Position**	**Yes/No**
Face, Neck	Align with spine and midline	Yes
Chest and Pelvis	Central aligned: nose-chin-sternum-umbilicus-pelvis Laterally aligned: shoulders, hips, knees, ankles	Yes
Elbows Align with Lungs	Align with side of chest	Yes
Knees	Never flexed >80°; <30° is better Align with hips and shoulders	Yes
Spine	Keep central neutral aligned within and despite gravity	Yes

ADDITIONAL SLEEP POSITION RULES

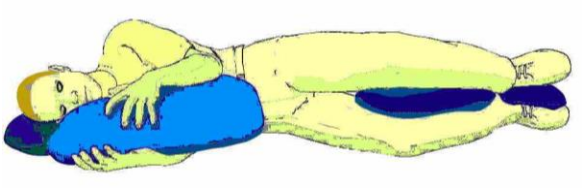
- Keep shoulders and neck warm, - independent of the bed covers. Wear loose, comfortable sweatshirt or other clothing above the waist)
- Remember, two different pillow heights for **SIDE** and **BACK** positions.
- Block out extraneous light, noise, or cold with small towel or fleece to shield the face and head.

Keep separate support under head (contour pillow or bolster), never under shoulder. Hug a pillow (one arm over, one under).

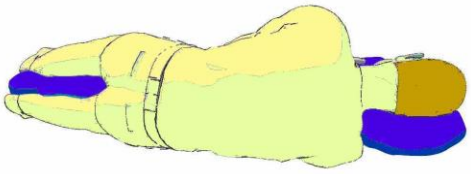
SIDE SLEEPING

The arms are in front of the torso above and below a pillow. **NEVER** let the arms over the head. Keep the upper arm supported from dropping across the body and pulling on the shoulder muscles.

Use a squared-off, contour-like pillow only under the head that supports the neck and cradles the face, ear and head. It may cover the eyes or face with another soft cloth.



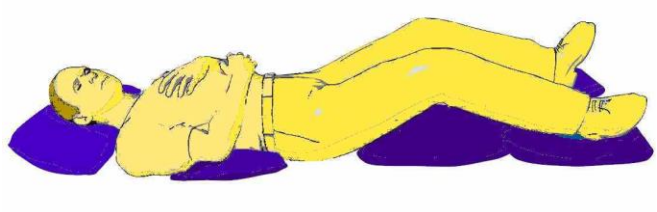
Always keep elbows (and arms) below the neck/ head pillow(s) between the knees.



Head support pillow or bolster shoulder high and only under head and neck

BACK SLEEPING

NEVER let the arms over the head, or flat at sides. The elbow height must be elevated higher than the back, along the sides, to mid-chest level during back sleeping. Keep the elbows below the chin. Keep hands on the chest-stomach or hugging a pillow.



PILLOW AND PILLOW HEIGHT FOR BACK SLEEPING is usually different from that for side sleeping.

The pillow needs to:

- Prevent (cradle) the head from rolling or twisting;
- Support under the neck;
- Gently support the back of the head (above and behind the ears); and
- Sometimes support the upper shoulders (depending upon the sleeper's anatomy) forward curved upper back.

THE SIX-PILLOW FIX

TABLE 2
SLEEP POSITION RULES: STOMACH, BACK AND/OR SIDE
STOMACH
NEVER ever sleep on the STOMACH! To break stomach sleeping: • Keep chest and shoulders warm with a light sweatshirt all night. Do not rely on the covers. • Use a soft separate coverlet to shield the face and eyes.
ALWAYS sleep on your SIDE or BACK.
SIDE
ALWAYS place a support pillow under the head. Never pull under the shoulder. (Pillow supports the head mid-shoulder high. Never kink the neck. A squared-off or contour pillow is usually best.)
Support the upper arm and forearm on a pillow or cushion, when sleeping on the side.
NEVER place arms under or above the head. Elbows must remain below chin-level and must be supported up off the mattress.
Position pillows or bolsters under the knees/legs and/or between the knees.
Position bolsters under the elbows. If sleeping on your back, keep hands on the chest and/or stomach, never overhead and not flat at sides.
Sleep in "sleep-bites." Wake up when changing position and get into best position for optimal comfort.
BOTH
Keep your shoulders and neck warm, independent of the bed covers. Wear a loose, comfortable sweatshirt or other clothing above the waist. Different pillow heights for **SIDE** and **BACK** positions. Support the neck, cradle the head.

RECOVERY TIME

Sleep time must be time for recovery, recharging and healing.

Sleep time should not be injury production time. Awake time should be used for stretching, therapy, motion, or splinting and motion, which are needed for recovery and restoration.

SELECTION OF SLEEP PLATFORM: BED/MATTRESS

- The sleep platform is the bed, mattress, couch, floor, etc. The sleep platform important.
- The nest on the platform is absolutely necessary, and the most important.
- Once the nest is understood, sleep platform considerations may proceed.
- There needs to be adequate room of the nesting materials.
- Look for and buy a new platform until only after the nest is started and being used.
- Properly nested, most platforms work fine. The key is to meld the best, most responsive and easiest of both platform and nest.
- Rotation between more than one sleep platform may be needed in the same night.
- Firm, soft or expensive doesn't mean better; pressure points must be avoided.
- Individualize, and don't be afraid to test and change. There is no single "best."
- Consider: "soft, but supportive." Individualize to each person.
- Before changing a platform for hip pain, do all of the following:
    - Control sleep position and nest.
    - Remove wallet from the back pocket.
    - Get and wear fitting arch supports.
    - Balance leg lengths and sitting hemi-pelvis heights.
    - Stop driving the stick-shift.

PRE-PLACEMENT OF NEST MATERIALS

Pre-placement of substantial nesting materials makes it possible to settle into and keep NBP positions. This discourages, thus avoids, injurious twisted-curled-up position.

NESTING ASSISTANCE TO KEEP NBP

Use a multitude of pillows and bolsters to train and to maintain effective sleeping position.

Head supports must be nearly impossible to pull under the shoulder (i.e., squared-off foam pillow or bolster with a soft topper if comfortable).

Two head supports are needed:

On the back: The pillow must first cradle the neck. It then must cradle the head at a comfortable, neutral level to the torso with the face open and clear.

On the side: It must first firmly and gently support the head and face at the same level above the sleep-platform as the spine that passes through the chest to the pelvis. While cradling the head it must allow the mouth and nose to be clear and protect the down-side eye and ear from pressure trauma.

Side bolsters: pillows (elongated, partially filled buckwheat hull bags in wide stocking nets with king pillow cases work) double as elbow pads on the back and large support and arm-holder bolsters with side sleeping.

Several long pillows below the waist make it harder to twist, turn to the stomach. They provide material for under or between the knees and legs.

Changing positions:

- Wake-up, access current position, elect new preplanned NBP position.
- Move into new position, reset pillows and cushions.
- Settle in, and go back to sleep.

NECK AND SHOULDER WARMTH

Do not permit cold neck. Clothe the neck, shoulders and upper chest independently in cool weather so that they are warm without the need for covers (i.e., sweatshirt, turtleneck or separate fleece wrap).

TABLE 3 SLEEP POSITION RULES (CONTINUED)		
AREA OF BODY	**ALWAYS**	**NEVER**
Face, Neck	Aligned, neck flexed or bent <10° from midline	Twisted, torqued
Thorax	Aligned with pelvis; shoulders parallel with hips	
Stomach		Down/twisted
Pelvis	Face up or side	Down/twisted >10°
Chest	Face up or side	Down/twisted >10°
Elbows	Below chest, shoulders, at or above spine	Above chest; at or behind spine; fall forward across chest
Hands and Wrists	Wrists flexed <30°	Hyper-flexed; placed under face, on or under eye orbit; face, forehead, or pillow displacing jaw.
Knees	Flexed <80°; aligned with hips and shoulders	Flexed >80°; flexed up; frog-leg; crossed; pulled-up; turned out and up

A DEFINITION: SLEEP POSTURE

A recovery storage position held more than 15 minutes in sustained immobility allowing abandon of nerve and muscle positions to gravity, in pursuit of physical relaxation and mental recovery.

ATTAIN AND SUSTAIN NBP SLEEP POSITION

- Visualize, and plan for Neutral Body Posture (NBP).
- Prepare the sleep area before lying down.
- Prepare and arrange your nest for use on your:
    - Sleep platform: bed, bunk-bed, couch, lounge chair, floor, car, airplane seat; and
    - Arrange for a neutral sleep environment: light, noise, temperature, changes, and interruptions.

THE NEST: SELECT, PREPARE, AND DEPLOY

- Nesting materials (pillows, cushions, buckwheat hull rolls, bolsters, fleeces, bags of rags, gimmick-pillows) are employed to maintain NBP sleep positions.
- Maintain NBP of face, head and neck.
- **ALWAYS** with back-sleep nest cradles the neck and head; elevation must be neutral for the individual's anatomy.
- **Side sleep**: nest supports core alignment and no twist or torque the face, jaw, or neck. Never with back-pull pillow under the shoulder or support the head on the back-center (occiput).

NBP OF CHEST

- **ALWAYS** have full-torso in parallel alignment of shoulders-thorax-pelvis and hips.
- **NEVER** allow protracted twisting of neck, chest or thorax relative to pelvis and hips, especially with sternum facing downward.

NBP OF ELBOWS

- **ALWAYS** keep elbows at level of chest to side of chest.
- **Back sleep:** nest elevates elbows above the spine level.
- **Side sleep:** nest keeps elbows forward and spread, chest aligned.
- **NEVER** let elbows above shoulders, scapula; back-to/ behind the spine; or, to cross over the chest.

NBP OF HANDS AND WRISTS

ALWAYS keep the hands and wrists un-flexed < 30°.

NEVER store hands under, on, or in head and face area.

NPB OF KNEES

ALWAYS keep knees in forward alignment with hips, shoulders and ankles. Keep flexed <80°, Keep separated on side by nest.

NEVER allow knees to be >90°, hyper-flexed >120°, rotated out and up (frog-leg); or cross knees.

POOR SLEEP POSITION RELATED CONDITIONS

The following listed conditions are here identified as “more likely than not” closely related to Twisted Curled-Up (TCU) sleep positions. Each condition correlates with a specific TCU-awkward habitual postures. They are worsened and maintained by TCU and LoKu (Low Crawl- twisted both upper and lower body). They are infrequent in those with a Neutral Body Posture (NBP).

TABLE 4
POOR SLEEP POSITION RELATED CONDITIONS
HEAD AND NECK
Twisted neck and face under pressure with chest-down sleep position

- TMJ
- Tinnitus
- Headache Syndrome
- Cervical spasm –SCM, splenius, occipitalis, LS, trap, scalenes
- Nocturnal Gastric reflux
    - Night cough (pseudo-allergy)
    - Night-time wheezing
    - Asthma, (especially childhood)
    - Laryngeal stridor, exercise asthma
    - Sinus irritation, repeat
    - Ear injuries, Eustachian tube, infections
- Sleep apnea, sleep disturbances
- Eye, conjunctival injury, sclera, scleral injury, floaters
- Facial bone and facial nerve injuries; tics
- AS (Scaleneus Anticus Syndrome)
- CCS (Costo Clavicular Syndrome)
- Shoulder dysfunction: impingement
- Acromial hyperplasia: muscle and cuff damage

THORAX AND ABDOMEN

Twisted cervical-thoracic, face twisted, chest-down sleep; chest and pelvis unaligned.

- Chest wall pain, non-cardiac: 6 areas
- Upper chest and shoulder dysfunction
- Anterior chest pain
    - Non cardiac chest pain
    - Thoracic pain syndromes
- Tachyarrhythmia's
- Neurocardiogenic Syncope (NCS).
- Psoas parasympathetic reflex
- GERD- LUQ abdominal dysfunction, tender, rib pain
    - Hiatal hernia
    - Morning diarrhea, hemorrhoids
    - Contribution to IBS
- GB-RUQ abdominal pain,
    - Constipation and bloating spasm,
    - Upper abdominal pain-twitching, spasm
    - Pseudo-GB sx with failed surgery
    - Contribution to IBS
- Irritable Bowel Syndrome (IBS)
- Mid-deep thoracic spasms (psoas)
    - "Abdominal-kidney" pain
    - Failed back syndrome

BACK, PELVIS AND GENITALIA

Twisted and compressed pelvic outlet with SI/hip joint dysfunctions.

- Psoas Muscles- Spastic and tender-
- Chronic Back pain-"failed back syndrome"
- Pelvic pain disorder; ovarian "cyst" pain
- Neuro-cardiogenic syncope ≈atypical seizure disorder
    - Dizziness, lightheadedness
- Spastic and tender Iliacus muscle
- Hip pain; SI joint disruption
    - "Snapping hip" –psoas tendon
    - Weak hips with climbing
    - Groin pain-lesser trochanter
- Pain: ilioinguinal ligament: 4 areas
- Groin, "Hernia" pain, failed surgery

- Nocturia, enuresis in little kids
- Dyspareunia
- Superficial numbness of genitalia

LOWER EXTREMITIES

Neuropathy to knees: twisted, compressed pelvic outlet of nerves.

- Lateral Femoral Cutaneous Neuropathy (LFCN)
- Anterior Femoral Cutaneous Neuropathy (AFCN)
- Femoral Motor Neuropathy (FMN); (motor loss)
- Genitofemoral and Ilio-Inguinal (GFN and IIN)
- Monoparesis of leg

LOWER EXTREMITIES

Knees down: (twisted, compressed pelvic outlet, joints, structures.)

- Knee injuries
- Internal derangements
- Peroneal neuropathy
- Vascular occlusions, varicose veins
- Swollen legs; thromboembolic syndromes
- Ankle dysfunction
- Foot neuropathies

OTHER OBSERVATIONS

- Start of conditions
- Stop of conditions
- Eye, globe-retina, cornea, globeptic nerve injuries
- Facial bone/ wrist-hand bone
- Facial injuries
- Hand-wrist injuries
- Seizure disorders
- Neurologic conditions

Some TCU-Related Conditions

EYES

Eye abrasions and pterygium can be caused from stomach sleeping with the face in the pillow.

Placing the hand under the eye with pressure causes floaters (detached vitreous debris); blurring (loss of pressure) in the mornings; optic nerve injury from prolonged pressure; tics from trauma to the infraorbital, supraorbital and lateral orbital nerves.

FROZEN SHOULDER: SUDDEN-ONSET OR EPISODIC

Frozen shoulder is from stomach sleeping or arms overhead sleeping or unsupported upper arm with side sleeping can cause stretch or shortening of the infraspinatus muscle.

TMJ

Idiopathic (unknown onset = 85+%). TMJ is most frequently caused or aggravated by upward jaw torque (displacement) due to stomach sleeping (this cause is also not suspected or reported).

THORACIC SPINE, CHEST CAGE, CHEST WALL PAIN

Twisted chest-pelvis, usually side-twisted down is a powerful cause and and aggravator of thoracic vertebral facet and costochondral (Tietze's) dysfunction/disease. It is a major precursor and frequent trigger of thoracic facet dysfunction. The usual cause of non-cardiac chest pain (usually happens on the body's 'long side'). This is also a result of prolonged sitting with balancing the short hemipelvis and prolonged standing/walking without balancing functional leg-length discrepancies of >1-2 mm. Sleeping twisted or badly extended aggravates the thoracic spine joints nightly and the arthritic spur markers frequently confirm the damage on x-rays.

ARM NUMBNESS, CTS – DOUBLE CRUSH

Numbness, tingling, radiculitis of the shoulders, arms and hands comes from and are aggravated by sleeping with the neck kinked by side sleeping with the pillow under the shoulder; arm overhead sleeping; stomach sleeping with the head turned; arm pulled way back with back sleeping and arms flat; or with arms overhead with back sleeping; scalenius anticus syndrome and costoclavicular syndrome (see Shoulder Neck Strain Syndrome).

CERVICAL ARTHRITIS, SPURS, DDD

Cause is side chest-twisted down sleeping with neck twisted hard to breather with badly torqued (twisted vertebral bodies. This weakens the capsule and causes facet arthrosis – spondylosis – degenerative discs also a major cause of lumbar facet and disc injury.

HEADACHE

Twisting of the neck muscles, particularly the SCM and the levator scapulae muscles by twisted neck and arm overhead sleeping with pinching of the cervical plexus between the scalenes at night are the most common night-time triggers for headache, especially migraines.

BACK PAIN, GROIN PAIN, AND LEG WEAKNESS

Ilio-psoas strain with groin, testicle or labial pain, temporary leg paralysis, numbness of the lateral thigh (meralgia paresthetica) is from sleeping with the knees bent up to the chest, especially stomach sleeping with shortening of the I-P muscle and entrapment of nerves in the groin area. (See Ilio-psoas and Back Pain Puzzle on the web site).

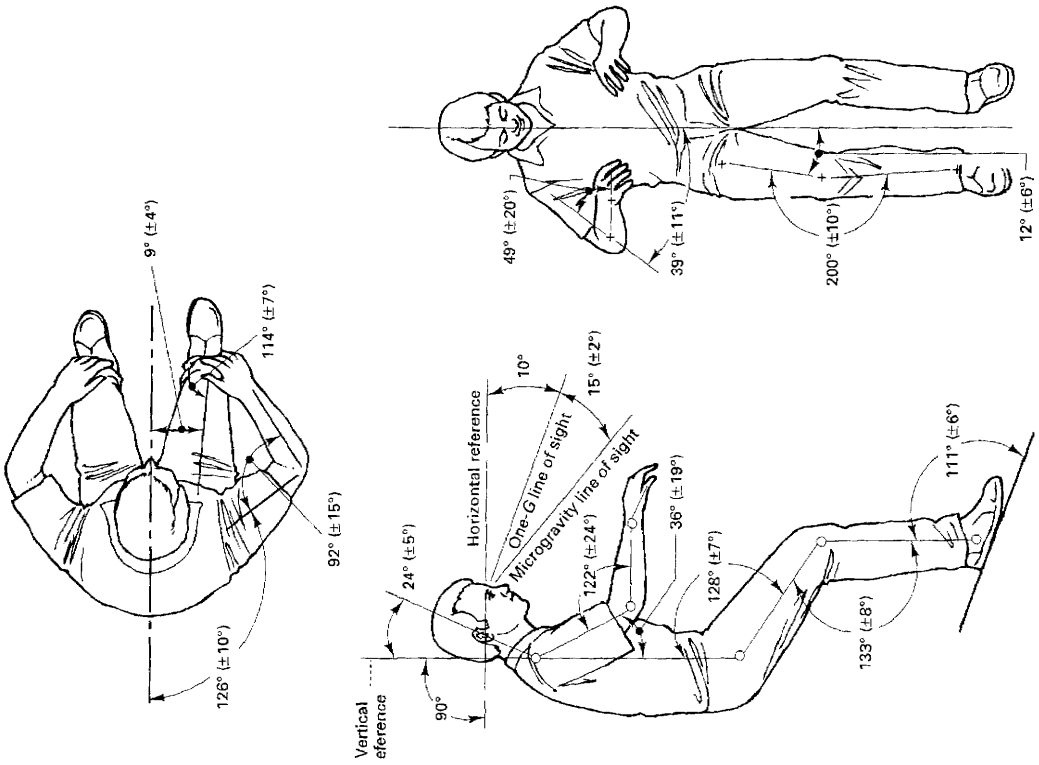
This back pain is long acting yet very fixable. For this to get better, the leg on the effected side must be mostly straight at the knee through the night.

LUMBAR SPINE

While twisted chest to pelvis also torques the lumbar spine as well as the thoracic and cervical. The more powerful influences on acute back spasm, facet arthropathy, is the L5-S1 long-body-side vulnerability to acute facet rubbing. This vulnerability is due to years of gradual height loss from compression with prolonged sitting and unbalanced standing. It is just a matter of balance and torque pressures.

This is very different from the usual muscular chronic back pain (90%) from psoas muscle spasm. Recovery position for the facet spasm when triggered is on the back with a small pillow under the buttock causing some pelvic upward tilt along with pillows under the knees and ankles.

NASA ASTRONAUT NEUTRAL BODY POSTURE



Relaxed posture assumed in space (NASA, 1989).

Hundreds of million dollars in research from 1961 through 2006 were spend on NASA's a Neutral Body Posture (NBP) document about astronaut neutral body rest and sleep safety in zero gravity. NOTE: These positions are at zero gravity. The posture straightens 50% at 1-X-G.

For more on this topic see:

- *Quantification of In-Flight Physical Changes - Anthropometry and Neutral Body Posture (Body Measures)* retrieved from https://www.nasa.gov/mission_pages/station/research/experiments/1070.html.
- *Anthropometry and Biomechanics* retrieved from: https://msis.jsc.nasa.gov/sections/section03.htm
- Clément, G. (2011). *Fundamentals of Space Medicine* (Vol. 23). New York: Springer Science and Business Media.

These inputs collectively contribute to a sense of body orientation and, additionally, coordinate the Neutral Body Posture (NBS) and the rest position of foot, leg, hip, elbow, shoulder, and neck. The direction of the line of sight, were modeled on the *Fundamentals of Space Medicine* by Gilles Clément, International Space University, Strasbourg, France.

ADDITIONAL NOTES ON SLEEP POSITIONS AS RELATED TO CHRONIC PAIN

The contents of this informational handout are the well-considered opinions of the author at the time of their writing. The author has no treating relationship whatsoever with reader. Professional advice should be sought from your personal health care provider(s). Neither the author nor the site has any financial interest or connection with any referenced resources or sites other than his own office and websites. The information gathered and shared has no external financing and has received no financial support or salary.

WHY SLEEP ISSUES?

I am an allopathic physician trained, certified and experienced in internal medicine, anesthesiology occupational medicine, preventive medicine, and pain diagnosis-management. My practice evolution in medicine has continued unbroken over the past 45 years. It has evolved into consultation, diagnostics, providing non-invasive pain and ergonomic management, and comprehensive disability evaluation.

For the past twenty years my primary area of focus has been into the exploration, discovery, and removal of causations for injury and pain. Skeptic of dogma, I sought and correlated patterns. The answers frequently differ with common acceptance and written dogma for the causations. The focus is accuracy of diagnosis, then causation, then the mechanics and ergonomics of causation. My treatment is removal of causation.

Over the past eighteen years, my experiences directed my focus to sleep position. Over the last seven years, in three populations, raw recordings of sleep positions and suspected sleep-position associated pain conditions, neuropathies, and physical injuries and syndromes were parallel-tallied during medical claimant evaluations. Upon decoding of the recordings, the data of history-exam data, devoid of individual identifying information, supported my suspicion that specific sleep postures correlate strongly with certain symptom complexes.

JUST PLAIN PAIN

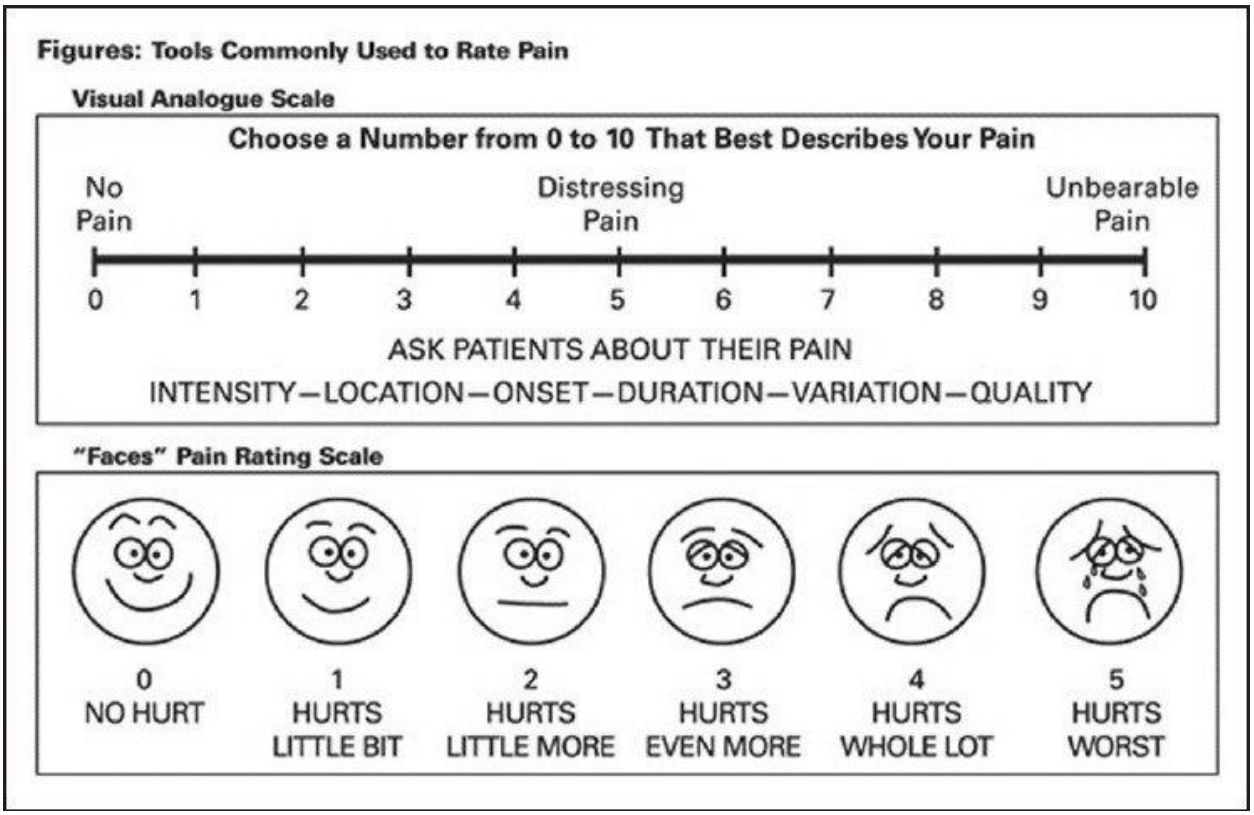
Subjective pain and discomfort affects all of us to some extent. Chronic active or recurring background pain is present in 70% to 90% of the world population, yet most individuals function through it without much comment or complaint. Pain and its underlying physical causations impair some function in more than 50% of the population to some degree. It temporarily or permanently disables as much as 8% of the population.

One percent: Chronic debilitating pain-impairment as a result of massive trauma, malignant disease states, or progressive specific disease states accounts for less than1% of the population.

Seven percent: Chronic debilitating pain-impairment attributed to less clearly define causes and complications of their treatments: back pain and degeneration; neck pain; headache; shoulder and thoracic pain; arm and hand neuralgias; degenerative hip and knee pain; irritable bowel; fibromyalgia; depression and associated anxiety accounts for 90% of the remaining 9% of the disabled. It also accounts for more than 70% of Work Compensation Costs and more than 70% of Veteran Disability Benefit Payments.

Most treatment for pain conditions concentrates to “mask the symptoms.” Co-existing is shared with the enigmatic, assumed, or real causations. Radiographic physical signs often assigned the causation role, but are much less frequently the cause for the pain. Pain and symptoms result almost inevitably result directly from active nerve-muscle-fascial-and ischemic vascular distress in the active sway-distress of tissues caught in the passage between active injury and active recovery.

VISUAL ANALOGUE (PAIN) SCALE (VAS): STANDARD OFFICE/HOSPITAL SUBJECTIVE PAIN SCALE



Directions: "0 = no pain" through10 = "The worst possible pain"

0: Ha-ha! I'm not wearing any pants!

2: Awesome! Someone just offered me a free hot dog!

4: Huh. I never knew that about giraffes.

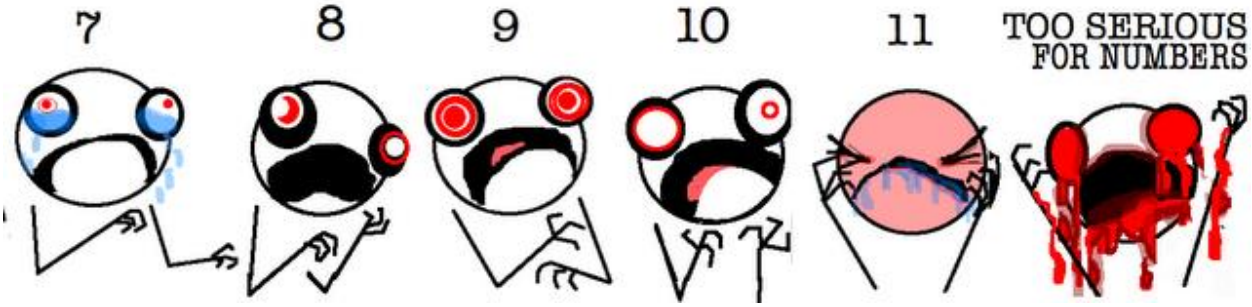
6: I'm sorry about your cat, but can we talk about something else now? I'm bored.

8: The ice cream I bought barely has any cookie dough chunks in it. This is not what I expected and I am disappointed.

10: You hurt my feelings and now I'm crying!

The VAS "Standard Pain Scale" is clinically very limited. It is only good over minutes to hours. It doesn't even have all the numbers. An unidentified observer made a modified-VAS, with all the numbers. The mod-VAS is a useful "Reality Check" to compare pain impact on function over minutes, hours, days, weeks, months and years.

http://3.bp.blogspot.com/_D_Z-D2tzi14/S3R1j_l5ErI/AAAAAAAABpM/J9BI2RD0GEg/s1600-h/painfaces0-6.png



http://4.bp.blogspot.com/_D_Z-D2tzi14/S3R2WxDSVNI/AAAAAAAABpU/F9aVHYeF7NM/s1600-h/painfaces7-12.png

0: Hi. I am not experiencing any pain at all. I don't know why I'm even here.
1: I am completely unsure whether I am experiencing pain or itching or maybe I just have a bad taste in my mouth.
2: I probably just need a Band Aid.
3: This is distressing. I don't want this to be happening to me at all.
4: My pain is like meeting a mad dog from hell. (It is not "messing" around!)
5: *Why is this happening to me*??
6: *Ow*!! Okay! My pain is *super* legit now.
7: I see Jesus coming for me, and I'm really scared.
8: I am experiencing a disturbing amount of pain. I might actually be dying. Please help!
9: I am almost definitely dying.
10: I am actively being mauled by a bear.
11: Blood is going to explode out of my face at any moment.
Too Serious For Numbers: You probably have ***Ebola***! It appears that you may also be suffering from stigmata and/or pinkeye.

The difference is simple ergonomics!