

Understanding and Using Medical Terminology

Massage therapists have an ethical responsibility to learn the following:

To communicate with their clients in a common language

To understand and communicate across disciplines with other health care professionals

To communicate cross-culturally so as to appreciate different perspectives on health and healing

We need to be able to communicate intelligently with clients, colleagues, and other health care professionals. Therefore standard terminology is a must. Without a common language, health care practitioners cannot communicate.

Language of Science and Medicine

Word elements used in medical terms:

Prefix: beginning element

Root: provides fundamental meaning of word

Suffix: element added to the end of a word to change its meaning

Most scientific and medical terms are derived from fundamental elements of Latin or Greek, the commonly accepted language bases. These elements are combined to form scientific terms, which include medical terms.

Once you know the meaning of the fundamental elements, you can easily interpret a term by separating the word into its elements: prefix, root, and suffix.

References

Medical dictionary

Electronic resources

A medical dictionary is a necessity. When selecting a medical dictionary, you should choose one that is encyclopedic and illustrated.

Electronic reference resources are also helpful. There are excellent sites that provide electronic medical dictionaries, encyclopedias, and other reference materials.

Abbreviations

Shortened form of words or phrases

Used in charting and keeping records

Guidelines for abbreviations:

If you are unsure, write out full term to ensure accuracy.

Too many abbreviations creates confusion.

Use only standard abbreviations.

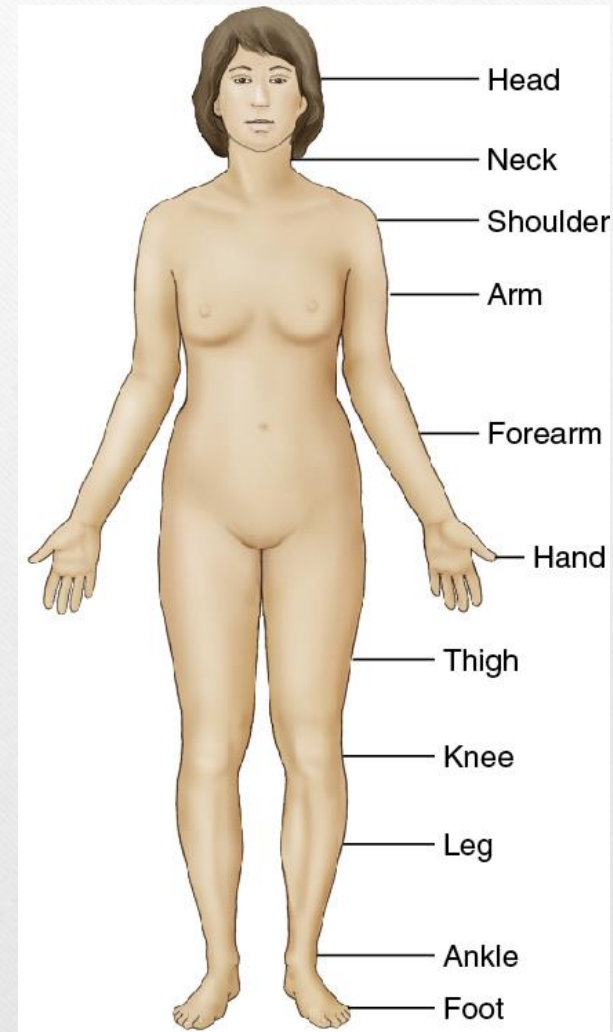
Provide abbreviation key when charting.

Abbreviations are used primarily in written communications to save time and space.

General Structural Plan of the Body

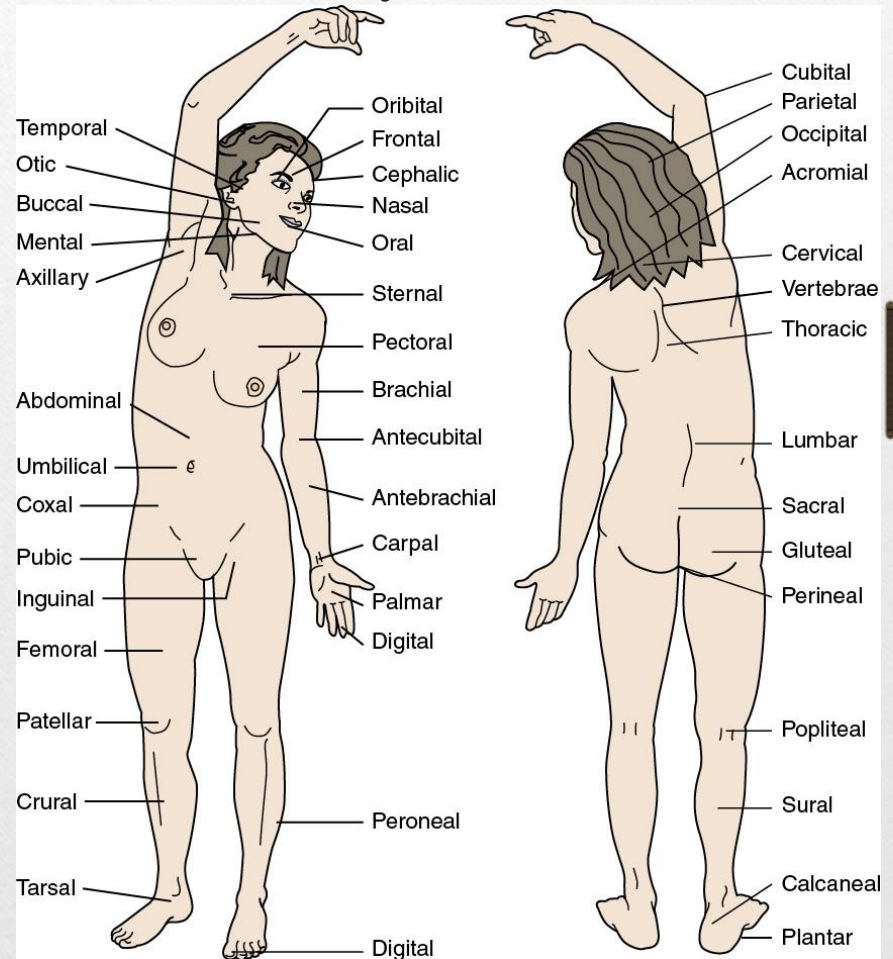
Anatomic Position

Like a road map, the body's map is essentially universal (similar landmarks, routes, etc.). The map of the body begins with the body in anatomic position.



Anatomic Regions and Surface Anatomy

Regional terms are used to designate specific areas of the body.



Structural Plan

Body organized along a clear plan

Spine is body's central axis:

- Supports trunk

- Supports dorsal cavity

- Supports ventral cavities

What is the dorsal cavity?

It holds the brain inside the skull and the spinal cord in the vertebral column.

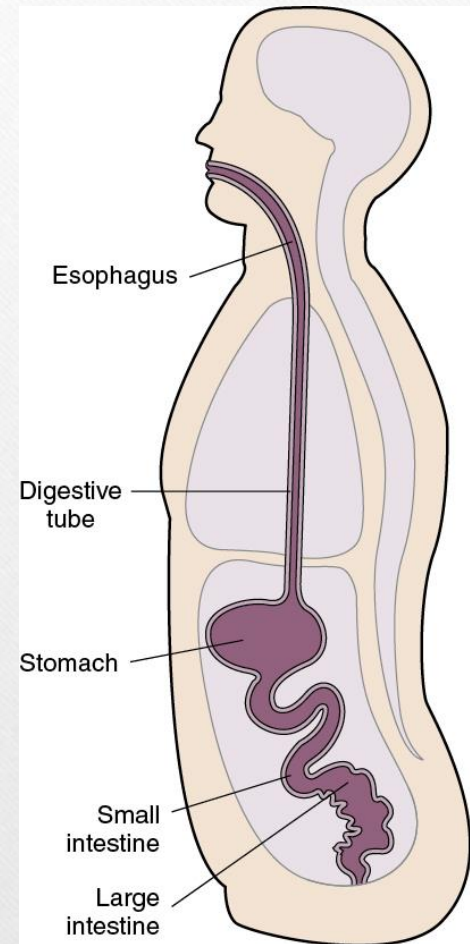
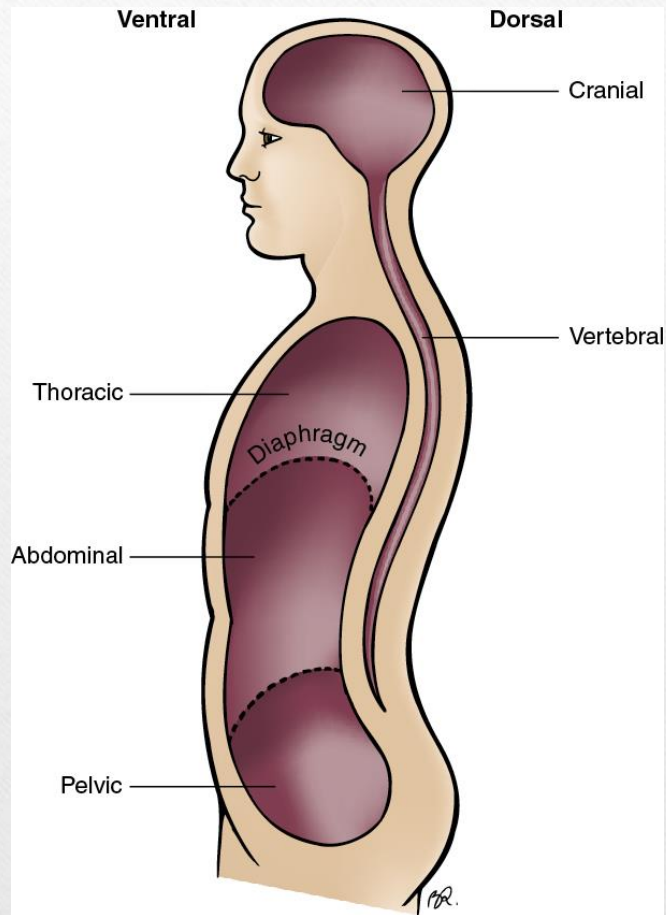
What are the ventral cavities?

Combination of the thoracic, abdominal, and pelvic cavities.)

Structural Plan

The body is designed as a tube within a tube.

The digestive system is a tube that lies within the greater tube of the trunk.



Related terms:

Soma, somato: root, meaning “body”

Axial: along the central axis

Appendicular: limbs, lateral appendages

Torso, trunk: chest, abdomen, vertebral cavity

The Trunk

Posterior region

Cranial cavity

Vertebral cavity

Cervical region

Thoracic region

Lumbar region

Sacral region

Coccyx

Anterior region

Thoracic cavity

Abdominal cavity

Pelvic cavity

Viscera

Parietal membranes

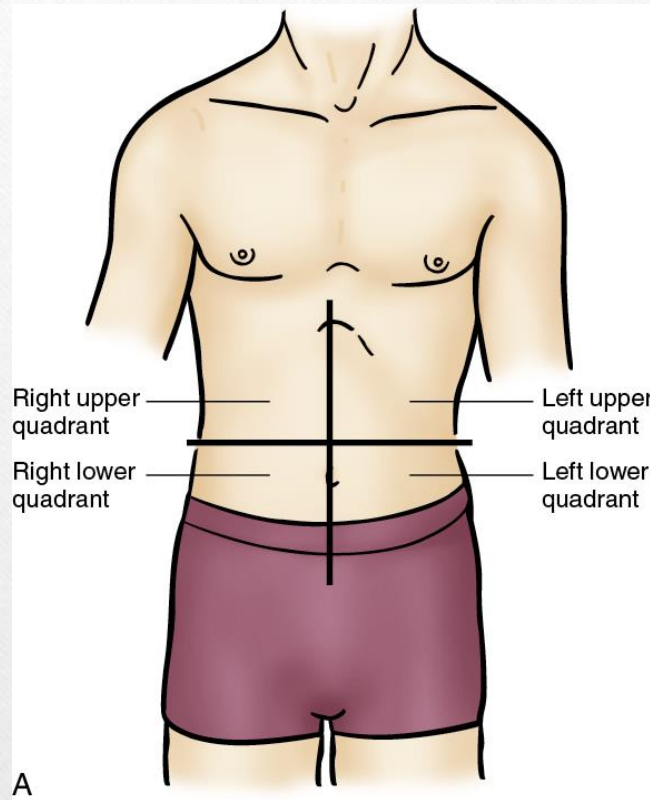
Visceral membranes

The viscera are the internal organs of the pelvic, thoracic, and abdominal cavities that are considered to be under involuntary control.

Parietal membranes line body cavities, while visceral membranes cover organs.

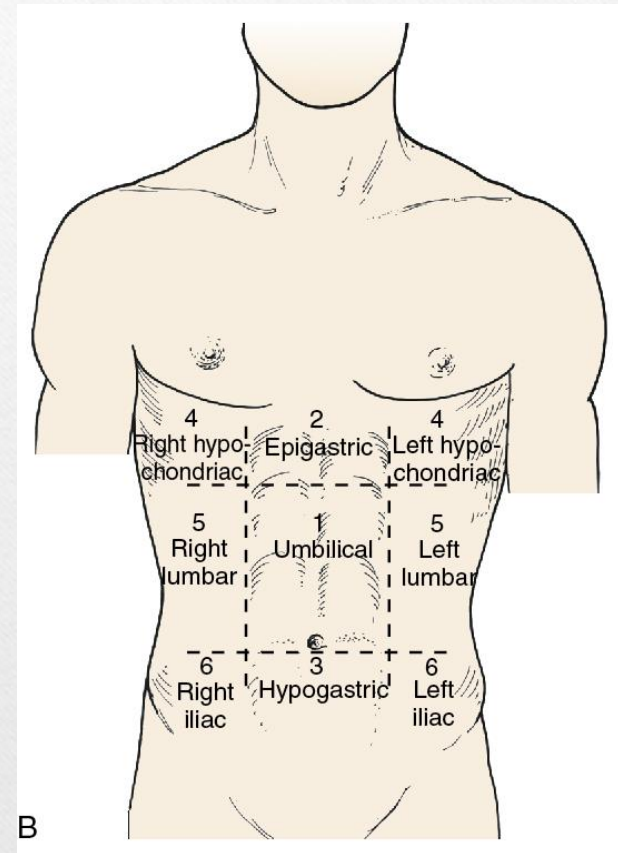
Abdominal Quadrants and Regions

*Four quadrants:
right upper,
left upper,
right lower,
and left lower.*



Nine regions:

right hypochondriac, epigastric, left hypochondriac, right lumbar, umbilical, left lumbar, right iliac, hypogastric, and left iliac.



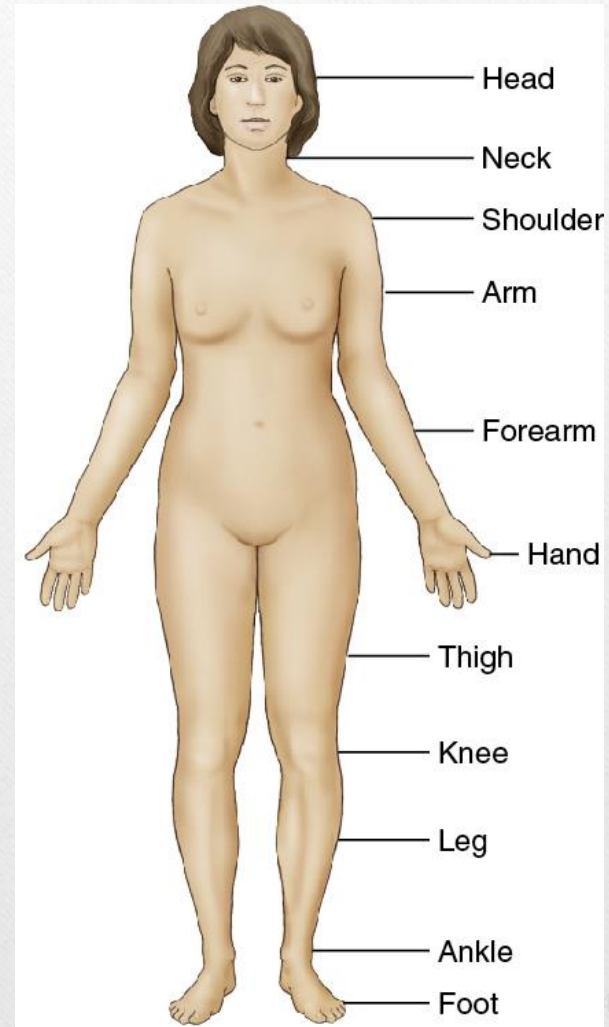
Positions of the Body

Anatomic

Functional

Erect

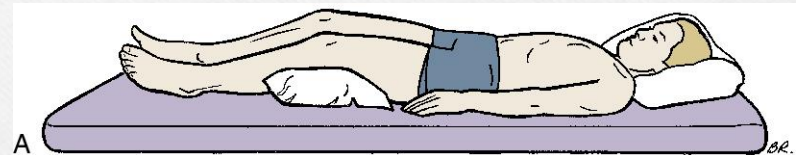
This figure shows the body in anatomical position. Functional position is similar, but the palms face the sides of the body.



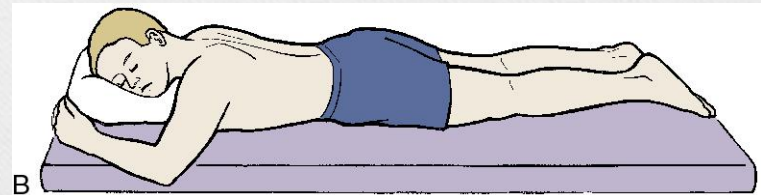
Positions of the Body

Supine; Prone; Lateral recumbent

In the supine position, the body is lying horizontally with the face up.



In the prone position, the body is lying horizontally with the face down.



In the lateral recumbent position, the body is lying horizontally on the right or left side.



Directional Terms

Anterior/Posterior

Proximal/Distal

Lateral/Medial

Superior/Inferior

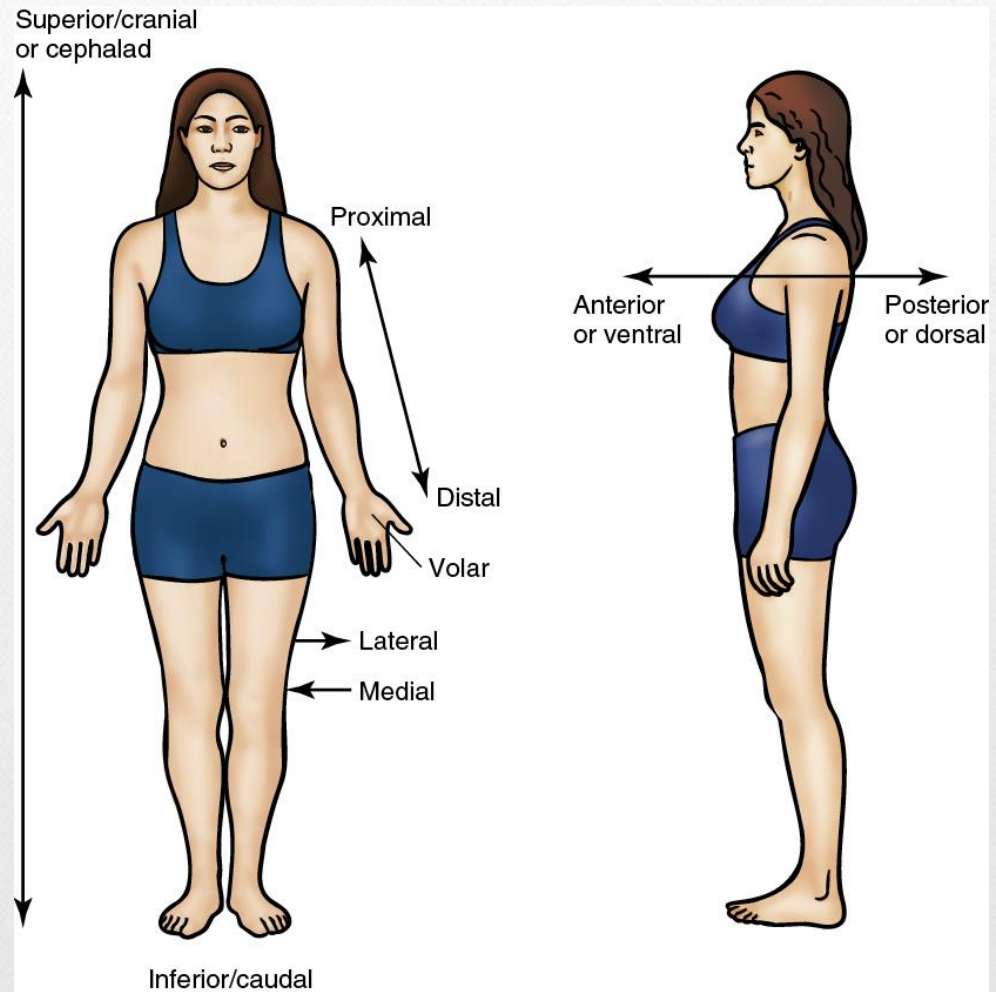
Volar/Plantar

Varus/Vagus

Internal/External

Deep/Superficial

Dextral/Sinistral



These terms describe the relationship of one body position to another.

Examples: plantar warts appear on the sole of the foot, and athletes sometimes tear their ACLs (anterior cruciate ligaments).

Directional terms remain the same when the body is horizontal.

Kinesiology

Study of movement

Uses principles of mechanics, musculoskeletal anatomy, and neuromuscular physiology

Biomechanics

Kinesiology brings together the study of anatomy, physiology, physics, and geometry as a means to understand human movement.

Kinetics are the forces causing movement, while kinematics are time, space, and mass aspects of a moving system.

Motion: change in position with respect to some reference frame or starting point

Reference points:

Anatomic position

Functional position

If we are going to observe and describe any type of motion, we have to have an agreed-upon starting point:

To reduce confusion

To define positional and motion terms

To identify the position of the segment in space

To identify whether motion has occurred

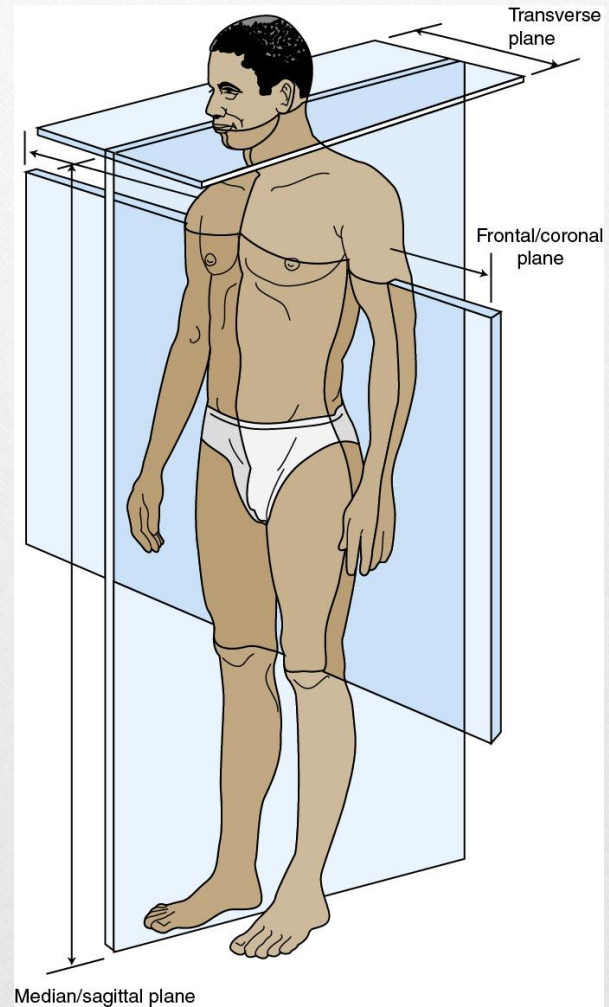
Body Planes and Movements

Various planes divide the body:

Sagittal plane

Frontal/Coronal plane

Transverse plane



The sagittal plane is a vertical plane that divides the body into left and right.

The frontal/ coronal plane runs vertically, too, but it divides the body from front to back (anterior to posterior).

The transverse plane divides the body into horizontal sections (superior and inferior).

Movement Terms

Flexion

Extension

Hyperextension

Abduction

Adduction

Lateral flexion

Rotation

Circumduction

Protraction

Retraction

Elevation

Depression

Supination

Pronation

Inversion

Eversion

Plantar Flexion

Dorsiflexion

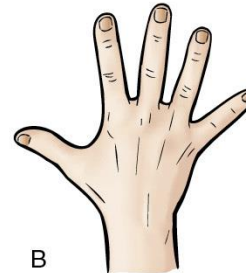
Body Movements

Finger adduction



A

Finger abduction



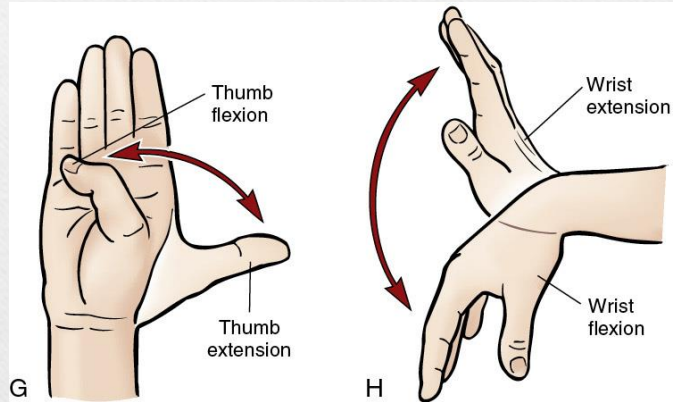
B

Finger extension



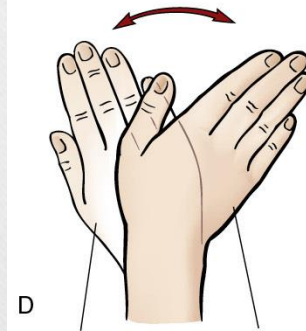
C

Finger flexion



G

H



D

Wrist abduction

Wrist adduction



E

Thumb adduction

Thumb abduction

Thumb opposition



F

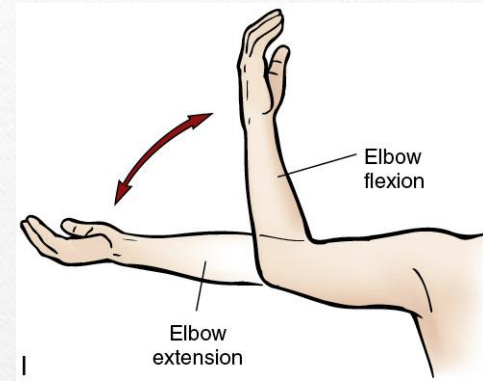
Movement terms define the action as the body part passes through the various planes.

A movement that takes a part of the body forward from the anatomic position within a sagittal plane is called flexion; movement backward is called extension.

Movements in a frontal plane that take a part of the body toward the midline are called adduction; movements away are called abduction.

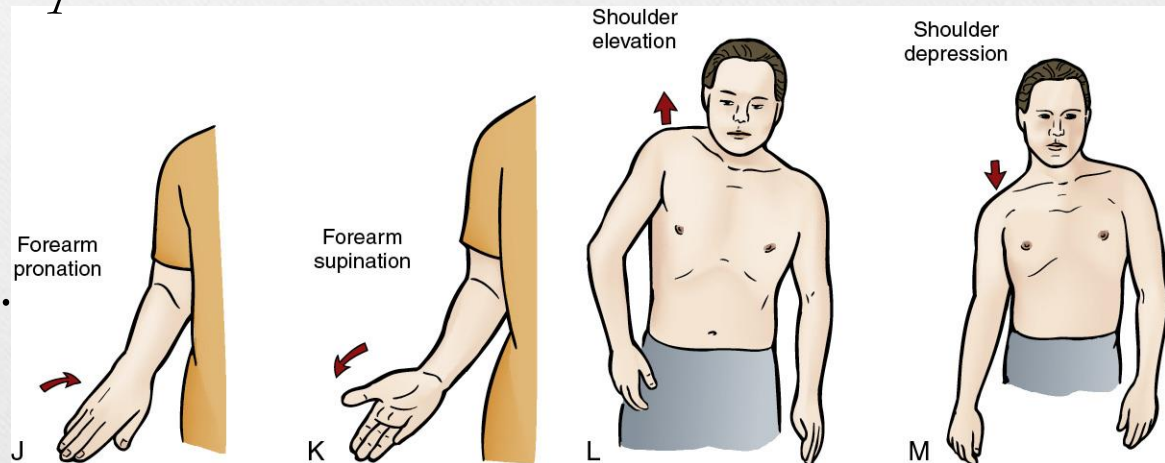
Pronation: Movement of the forearm (at the radioulnar joint, not the elbow joint) that turns the palm posteriorly (downward).

Supination: Movement of the forearm (at the radioulnar joint, not the elbow joint) that turns the palm anteriorly (upward), as in cupping a bowl of soup.



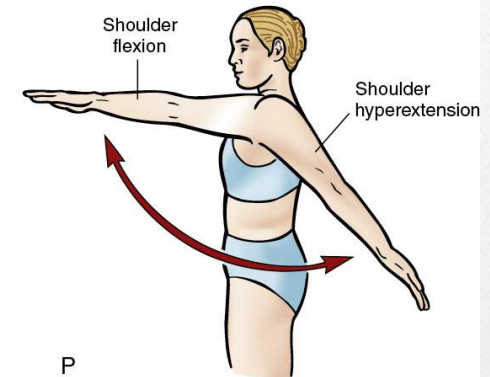
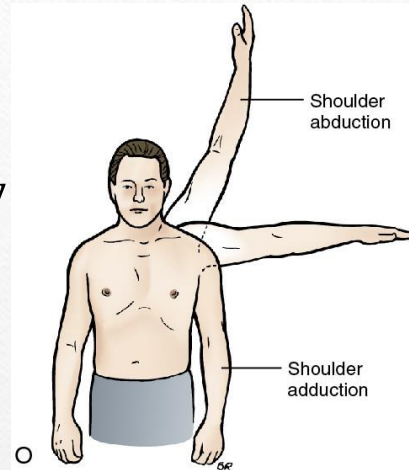
Elevation:
Moving a part
upward (superiorly).

Depression:
Moving a part downward (inferiorly).



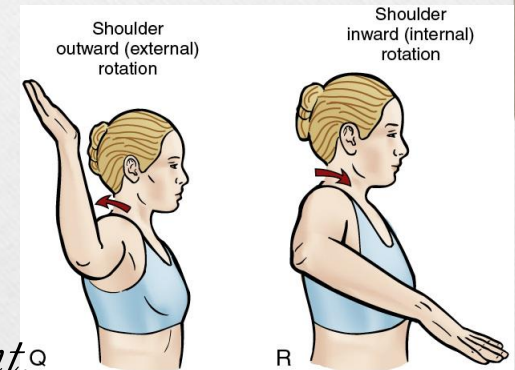
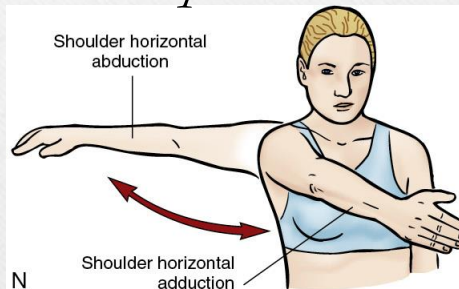
Hyperextension:

*A term that has two definitions:
(1) any extension beyond normal or healthy extension; (2) any extension that takes the part farther in the direction of the extension, farther out of the anatomic position.*



Abduction (ABD):

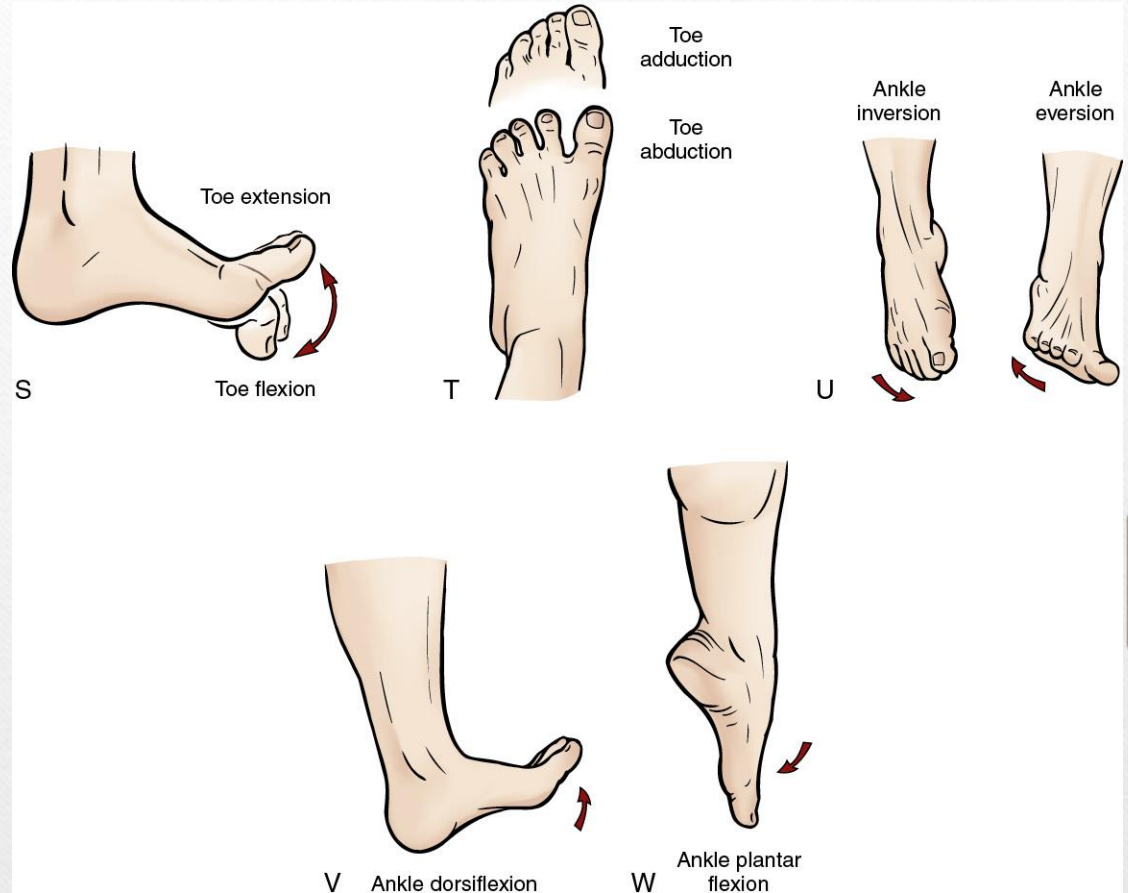
Movement of the appendicular body part away from the midline; abduction is frontal plane movement.



Adduction (ADD): *Movement of the appendicular body part toward the midline; adduction is a frontal plane movement.*

Inversion:

Movement of the sole of the foot inward, toward the midline



Eversion:

Movement of the sole of the foot outward, away from the midline

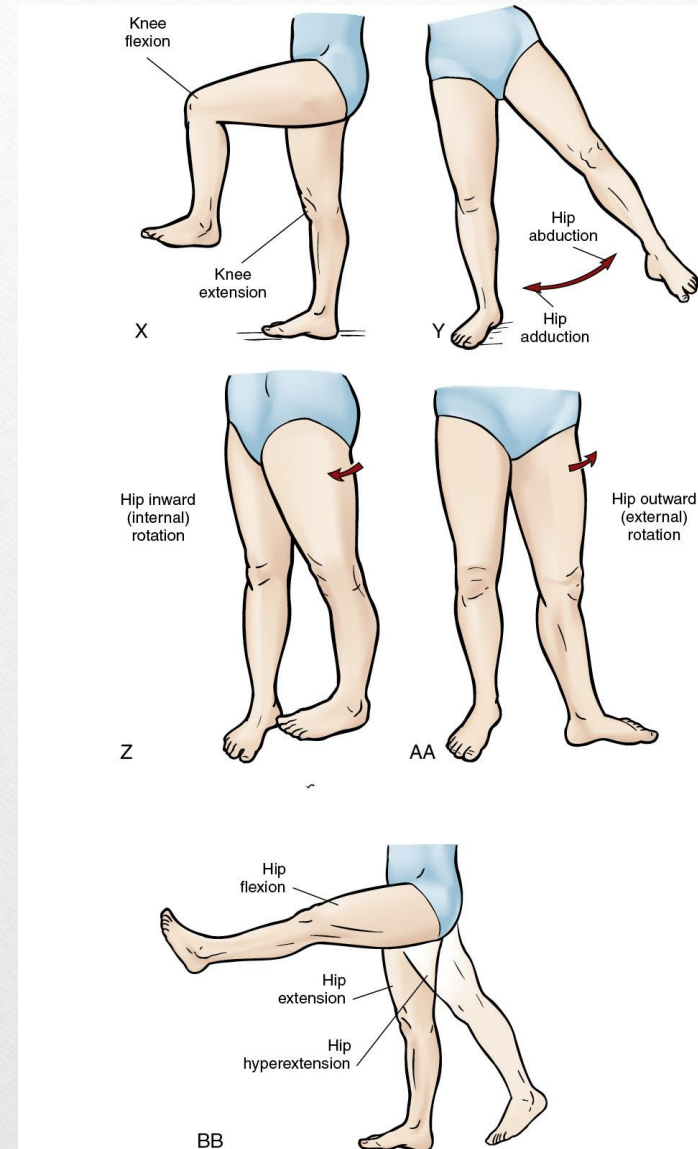
Dorsiflexion:

Movement of the foot upward (may also be called extension)

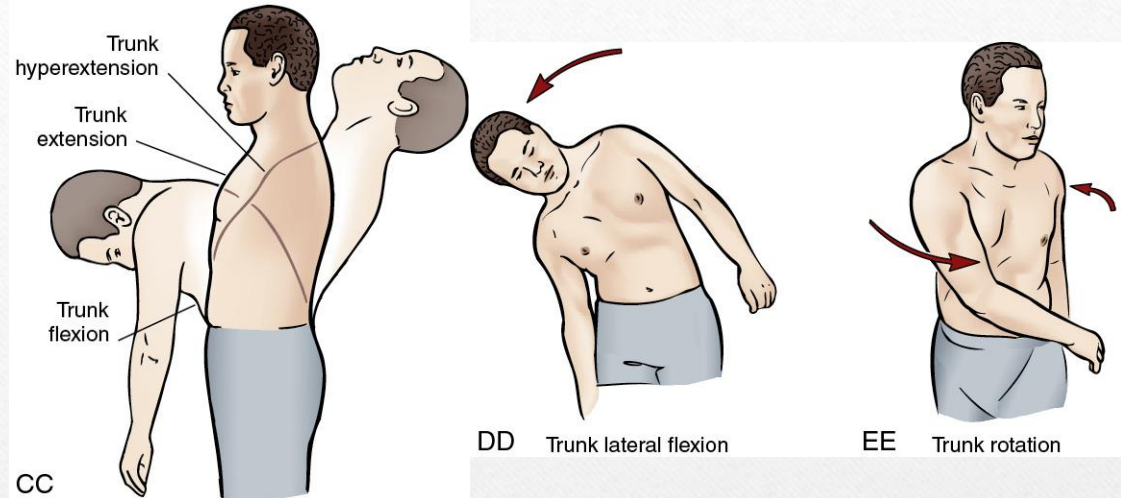
Plantar Flexion: *Movement of the foot downward (may also be called flexion)*

Right Rotation: *Partially turning or pivoting the axial body part in an arc around a central axis to the right; right rotation is a transverse plane movement.*

Left Rotation: *Partially turning or pivoting the axial body part in an arc around a central axis to the left; left rotation is a transverse plane movement.*

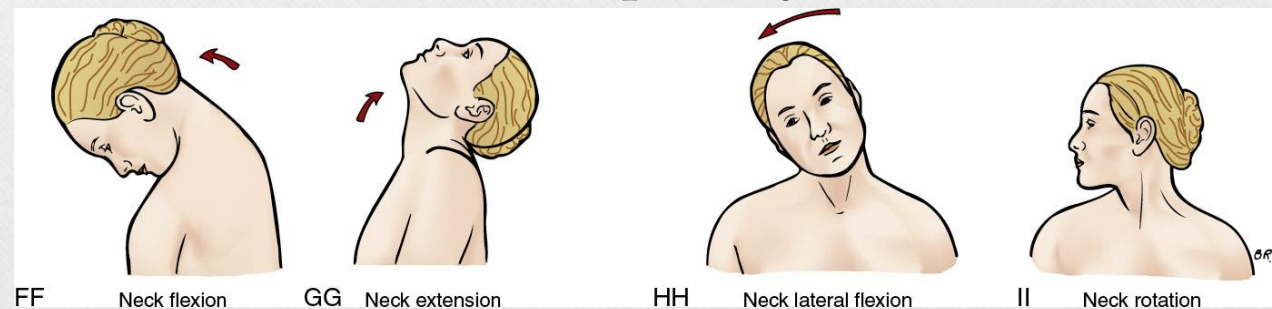


Right Lateral Flexion: Movement of the axial body part to the right; right lateral flexion is a frontal plane movement.



Left Lateral Flexion: Movement of the axial body part to the left; left lateral flexion is a frontal plane movement.

Circumduction: Not a movement, but a sequence of movements that turns or pivots the part through an entire arc, making a complete circle.



Quality-of-Life Terminology,
Western vs. Cultural Healing,
Clinical Reasoning
and Charting

Quality-of-Life Terminology

Quality of life: individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns.

The World Health Organization (WHO) is the directing and coordinating authority for health within the United Nations system.

WHO undertook the task of identifying, defining, and assessing the spectrum of life quality.

Quality-of-Life Domains

Domain I: Physical Domain

Pain and discomfort

Energy and fatigue

Sleep and rest

The WHO quality-of-life criteria are divided into six domains, which include 24 subareas.

Domain II: Psychological

Positive feelings

Thinking, learning, memory, and concentration

Self-esteem

Body image and appearance

Negative feelings

Domain III: Level of Independence

Mobility

Activities of daily living

Dependence on medication or treatments

Working capacity

Domain IV: Social Relationships

Personal relationships

Experience companionship, love, and support

Social support

Sexual activity

Domain V: Environment

Physical safety and security

Home environment

Financial resources

Health and social care: availability and quality

Opportunities for acquiring new information and skills

Participation in and opportunities for recreation and leisure

Physical environment

Transport

Domain VI: Spirituality/Religion/Personal Beliefs

Spirituality/religion/personal beliefs

Ancient Healing Practices

Western medical practice tends to separate mind, body, and spirit.

Ancient practices rely more heavily on intuition.

Modern Western and ancient practices are not as disparate as they used to be.

Western medicine is a recent invention, compared to many health systems.

What is intuition?

Knowing something without going through a conscious, problem-solving, rational process of thinking.

Western vs. Cultural Healing

Western medicine tries to identify symptoms and eliminate them.

Cultural healing systems, such as the Chinese health system, promote health by working toward homeostasis.

Western medicine is continually “discovering” ancient techniques and adapting them for its own use.

Asian Perspective

Based on the meridian system

Anatomic, physiological functions

Explained by acupuncture points

Five-element relationship

Acupuncture

Conditions positively affected by acupuncture:

Low back pain

Neck pain

Headache

Dental pain

Hypertension

Depression

Peptic ulcer

Trigger Points

Trigger point: localized area of deep tenderness and increased tissue resistance

Pressure on trigger point causes referred pain in a predictable area.

In Western science acupuncture points have been identified with various anatomic or physiologic locations or functions in the body.

These same acupuncture points have been shown to have close correlations with trigger points and corresponding pain patterns.

Point Phenomena, East and West

Many commonalities

Located in palpable depressions

Associated with specific neurovascular formations

Located on the surface of alpha and delta fibers

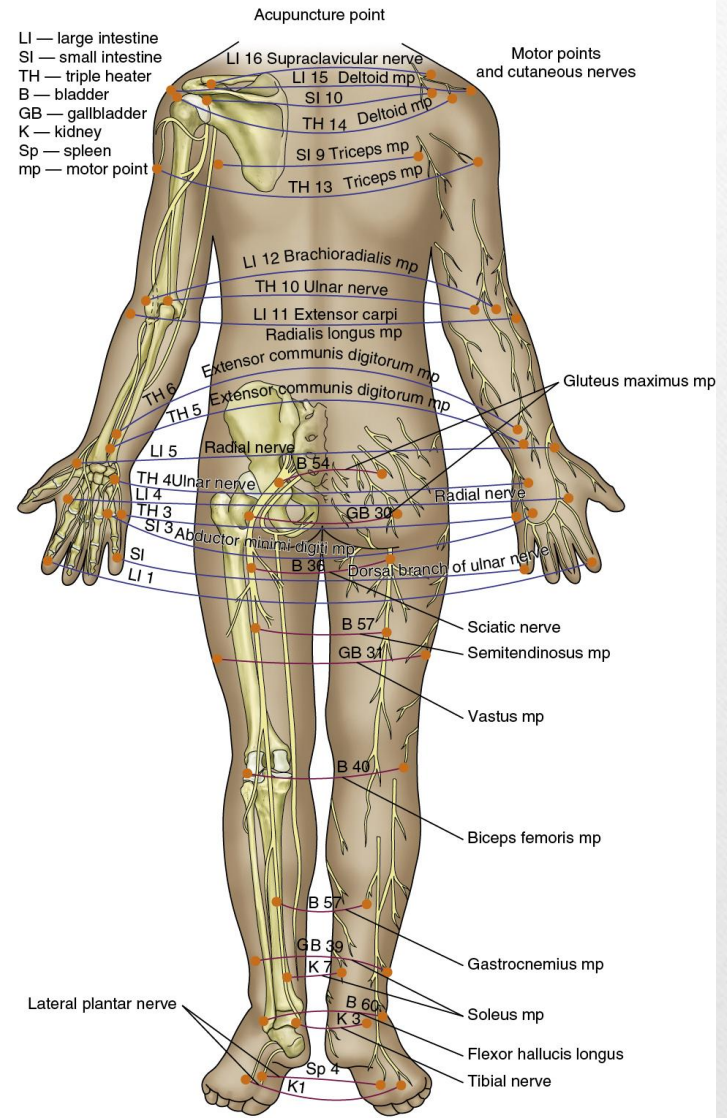
Deep to alpha and delta fibers in the same area

Many acupuncture points over large nerve trunks and cutaneous neurovascular bundles

Points stimulated to create a body change are often located in areas over nerves. Nerves near the surface can affect nerves beneath to trigger desired changes.

This figure provides a comparison of traditional acupuncture points, motor points, and cutaneous nerves of the arm and leg.

The left side of this diagram is labeled with the acupuncture points and the meridians along which they run. The right side is labeled with cutaneous nerves of the arm and leg. What does this tell us? (Western and ancient health systems are not as disparate as they might seem at first.)



East Meets West

Body desires homeostasis; will use all available stimuli to achieve it.

Acupuncture and acupressure assist process.

Restore balance between yin and yang

Results in a stable internal environment

Balance between various body processes, systems

Eastern and Western medicine are not always in opposition. Both traditions can learn from each other, and it appears likely that a combination of the two will prove effective in helping clients.

Points and Meridians

Lung (L; yin)

Large intestine (LI; yang)

Stomach (ST; yang)

Spleen (SP; yin)

Heart (H; yin)

Small intestine (SI; yang)

Bladder (B; yang)

Kidney (K; yin)

Circulation (C; yin)

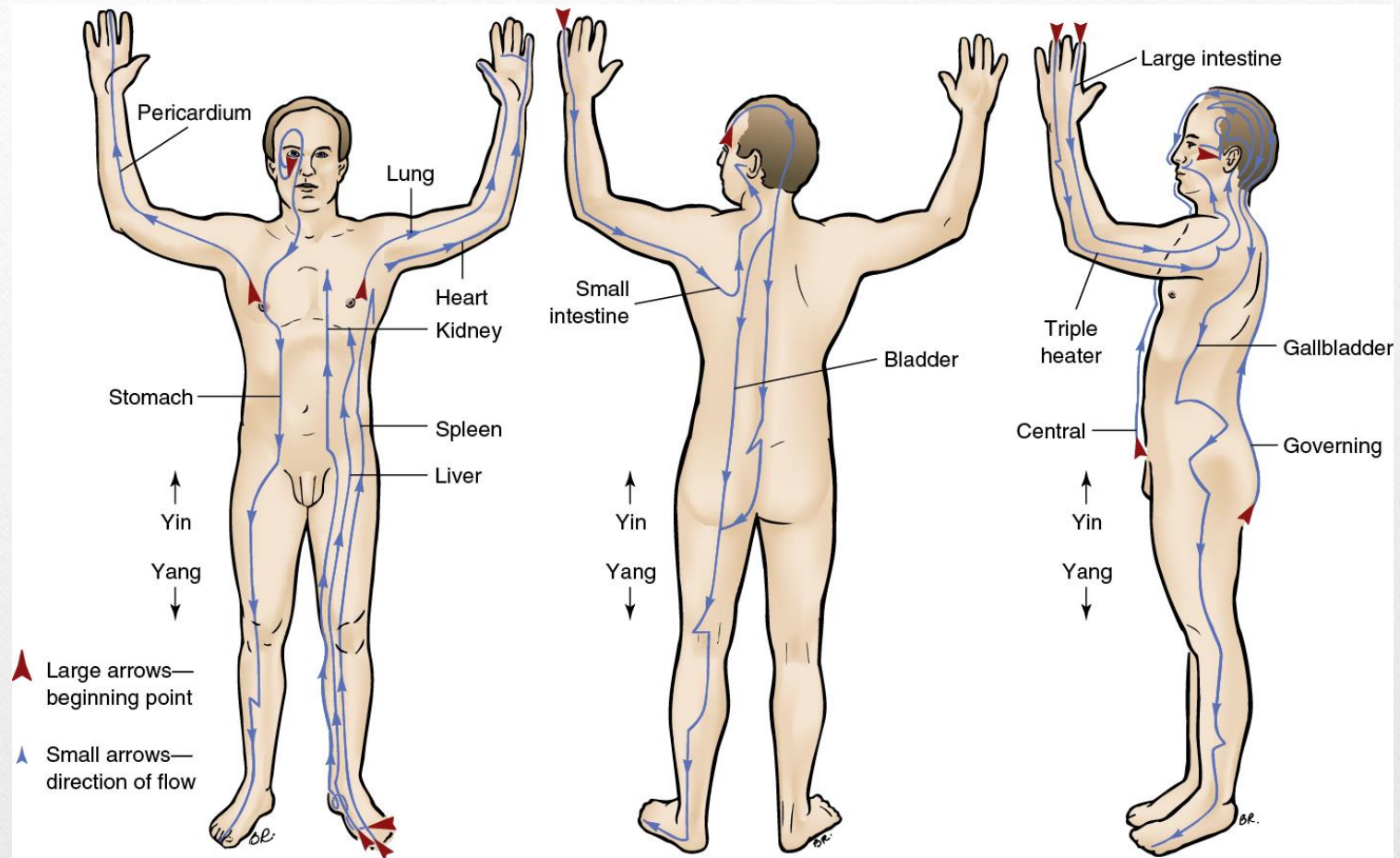
Triple-heater (TH; yang)

Gallbladder (GB; yang)

Liver (LIV; yin)

Meridians are bilateral, symmetrically distributed lines of acupuncture points with affinity for or effects on the organs for which they are named.

Meridians



This is a map of the major meridians on the body. Meridians tend to follow nerves.

Jing Luo

Chinese system of meridians or channels and network vessels

Important to massage therapy

Influenced by historic and current Chinese medicine

Jing Luo

Transport system for Qi (life force) and blood

Jing: warp, channels, longitude, manage, constant, regular

Luo: something that resembles a net, subsidiary channels

Yin/Yang Theory

Opposites/complementary opposites

Separation of yin and yang gave rise to Qi.

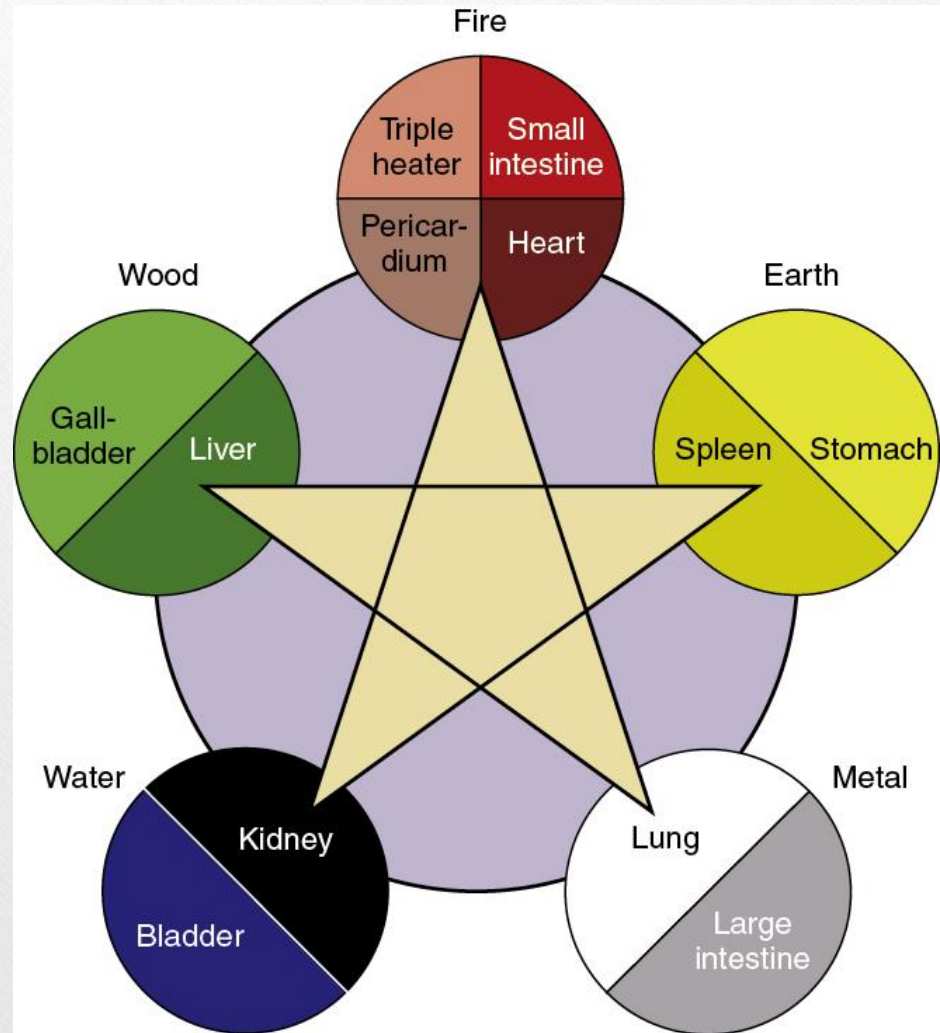
All things are manifestations of Qi.

In Chinese theory yin and yang are conceived as being in opposition but not in conflict.

Wu Xing (Five Elements)

The five elements come from a traditional structure that supports much of Chinese thought.

The star refers to relationship of control, while the circles refer to creation.



Organ Relationships

Ayurveda: doshas

Vata, Pitta, Kapha

Polarity system

Acupuncture

Massage

Commonality of these systems:

Treat internal function by external stimulation (i.e., events inside the body affect the outside and vice versa.)

Unlike the Western concept of individual organs, Eastern philosophy considers organ systems. Each system includes an organ, essences, and fluids as they interact with the meridians.

For centuries practitioners have been using these techniques to reestablish homeostasis within the body.

Current research has validated the cutaneous-visceral connections that are an aspect of the practices.

Massage Therapy

Massage therapists

Combine Western and ancient healing practices

Must understand scientific terminology

Must understand language and philosophy underlying Asian healing practices

Role of meditation, soft tissue methods

Use of naturally occurring substances for medicinal purposes

Western medicine is a newcomer on the scene, but it is making great strides to adapt other cultural practices for its own use and has a lot to learn, particularly in the area of massage therapy, from Eastern worldviews.

Clinical Reasoning and Charting

Critical thinking:

Examine a problem.

Find a solution.

Think about why you were or were not successful.

Learn from your successes and failures.

Skill in effective reasoning is the mark of an experienced professional.

Know the difference between critical thinkers and noncritical thinkers.

Clinical reasoning skills enable massage practitioners to be able to gather information effectively, analyze the information, determine the type and appropriateness of a therapeutic intervention, and evaluate and justify the benefits derived from the intervention.

Critical thinking is a learned skill for logical and objective thinking. Because it is natural to have flawed thinking, educators, scientists, and other experts have developed processes such as the scientific method for effective thinking.

Charting/Documentation

SOAP charting method:

S = subjective information from the client

O = objective data from inspection

A = analysis of the subjective and objective data

P = plan, including methods for future

Charting represents a clinical reasoning methodology that emphasizes a problem-solving approach to client care.

Database

Consists of all available info that contributes to client care:

Info obtained from a history-taking interview with the client and from other pertinent persons

Prior records

Health care treatment orders (subjective)

The physical assessment (objective)

The first part of the database is the history-taking interview. The history also contains an account of the client's current health practices and perception of quality of life.

The physical assessment makes up the second part of the database. The extent and depth of this assessment vary from setting to setting, from practitioner to practitioner, and according to the client's situation.

Analyzing the Data

Massage practitioner:

Identifies problems to be addressed

Identifies goals to be achieved

Decides on a treatment plan

Massage therapy is not always intended to fix dysfunction. Clients use therapeutic massage for a variety of reasons. You can, and should, use the SOAP charting method to meet those clients' needs as well.

Treatment Planning

P (plan) part of SOAP method

Requires constant reevaluation and adjustment

Attention required to possible need for referral

Stay within scope of practice

Effective work with clients is a continual learning process of assessing, deciding on interventions, and analyzing effectiveness through evaluation of progress from session to session.

Even in the most basic sessions, when the client's goals are pleasure and relaxation, the practitioner must decide on the best ways to encourage the body to respond to meet those goals.

To Test

Access Code: **T7XME**

Please write down code. You will be asked for it

Once you have successfully passed the test (70% correct), please email Kim Jackson at kim_hotschool@yahoo.com. We will email you your CE certificate within 7 business days.