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### Terminology

Basis of most terms are Greek and Latin in origin. Learning the root word meaning is must to studying.

Word Part	Meaning	Example
a-, an-	Without	Malignant melanoma lesions may show as asymmetrical discolorations on the skin
acro-	Extremity	Acral lentiginous melanoma usually begins on the finger or toes
adeno-	Glandular	Adenocarcinoma is cancer that begins in the glands.
-algia	Pain	An an <b>alge</b> sic is a painkiller
angio-	Blood or lymph vessels	Angiogenesis is the production of new blood vessels
arthr-	Joint	Arthroplasty is surgical implantation of an artificial joint, often to treat osteoarthritis
brady-	Slow	Bradycardia means slow heartbeat
carcin-	Crab (cancer)	A carcinogen is a cancer-triggering agent
cardio-	Heart	Cardiomyopathy refers to damaged heart muscle
cervi-,cervico-	Neck	Cervical cancer originates in cells found in the neck of the uterus
-cele	Swelling, hernia	In spina bifida meningo <b>cele</b> , the dura mater and arachnoid protrude through an incompletely closed vertebral arch
cep-, cephi-	Head, brain	Encephalitis refers to inflammation of the brain
chole-	Bile	Cholecyst is another term for gallbladder
com-, con-	With, together	A <b>con</b> centric muscle contraction brings the bony attachments closer together
contra-	Against	a coup- <b>contre</b> coup head injury occurs when the brain hits the opposite side of the cranium for the direction of the original blow
cyst-	Hollow organ	Cholecystitis is inflammation of the gallbladder

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Word Part	Meaning	Example
demo-	People	Demographics is recorded information about a specific group of people
derm-	Skin	Dermatophytosis is the condition of having plants growing on the skin
dia-	Through	<b>Dia</b> betes mellitus means sweetness flowing through, referring to excessive production of urine that is high in sugar
dys-	Difficulty	Dysphagia is difficulty with swallowing or eating
ecto-, -ectomy	Outside, removal	An appende <b>ctomy</b> is the removal of the appendix
-emia	Blood	Septicemia is a type of infection of the blood
endo-	Inside	An endoscopy is a test to examine the lining of the gastrointestinal tract
epi-	Upon	An <b>epi</b> demic is a contagious disease that affects a lot of people
erythr-	Red	Erythropoietin is a hormone that stimulates production of red blood cells
ex-	Out of	<b>Ex</b> ophthalmos is a condition in which the eyes bulge out of their usual position
-gen	Beginning, producing	An aller <b>gen</b> is an allergy-producing substance
glyco-	Relating to sugar	Hypo <b>glyce</b> mia is another term for low blood sugar
-graphy	Recording, writing	Vernography is a test to measure blood flow through veins
hemi-	Half	Hemiplegic cerebral palsy affects half of the body
hemo-	Blood	Hemorrhage means flowing blood
hepat-	Liver	Hepatitis is inflammation of the liver
hydro-	Water	Hydrocephalus is a condition involving too much cerebrospinal fluid
hyper-	Above, too much	Hyperuricemia describes having too much uric acid in the blood
hypo-	Below. too little	Hypotension is another term for low blood pressure

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Word Part	Meaning	Example
-itis	Inflammation	Arthritis is inflammation of a joint
-lepsis	Seizure	Epi <b>lepsy</b> is a type of seizure disorder
leuko-	White	Leukemia is a cancer involving overproduction of white blood cells
lipo-	Fat	Hyperlipidemia describes high levels of fat in the blood
litho-	Rock	Presence of a kidney stone is nephrolithiasis
-logy	Study	Pathology is the study of disease
-lysis, -lyso	Destruction	Paralysis is the loss of normal function
mega	Large	Spleno <b>megal</b> y (enlarged spleen) is a potential complication of mononucleosis
meno-	Month	Menstruation is the monthly detachment and expulsion of the uterus lining
metr-	Mother (uterus)	The endometrium is the inner lining of the uterus
micro-	Small	<b>Micro</b> graphia (shrinking of handwriting) is a possible symptom of Parkinson disease
myco-	Fungus	Mycosis is any disease cause by a yeast or a fungus
mye-	Marrow or spinal cord	A <b>mye</b> locele is a protrusion of the spinal cord, seen with some types of sina bifida
myo-	Muscle	Fibro <b>mya</b> lgia is a fiber muscle pain
narco-	Stupor	Narcolepsy means sleep seizure
necro-	Death	Necrosis is the condition of tissue death
neo-	New	A <b>neo</b> plasm is a new formation; it sometimes refers to a cancerous growth
nephro-	Kidney	Nephritis is the inflammation of a kidney
neuro-	Nerve	Peripheral <b>neuro</b> pathy is a complication of untreated diabetes mellitus

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Word Part	Meaning	Example
-oid	Resembles	The sigm <b>oid</b> colon looks like an S
-oma	Tumor	A lip <b>oma</b> is a benign fatty tumor
onco-	Tumor	An <b>onco</b> logist is a doctor who specializes in cancer
orchi-	Testes	Orchitis is inflammation of the testicles
-osis	Pathologic condition	Hyperkyph <b>osis</b> is the condition of having an accentuated kyphotic curve
osteo-	Bone	Osteoporosis is the condition of developing porous bones
para-	Alongside, ,near	The <b>para</b> spinal muscles run parallel to the spine
peri-	Around	The <b>peri</b> cardium wraps around teh heart
phagia-	Eating	Polyphagia, or contact hunger is a symptom of diabetes mellitus
-philia	Affinity	Hemo <b>philia</b> is a blood clotting disorder
phleb-	Vein	Thrombo <b>phleb</b> itis is inflammation of a vein because of a clot
phyto-	Plants	Dermatophytosis is another term for funal infectino of the skin
-plasia	Growth	Hyper <b>plasia</b> means too much growth
-plasm, -plasma	Formed	A wart is a type of neo <b>plasm</b>
patho-	Disease state	A <b>patho</b> gen is a disease-causing organism
physio-	Nature	Physiology is the study of normal life functions
pseudo-	False	<b>Pseudo</b> -gout involves different chemical deposits from those seen with acute gouty arthritis
psych-	The Mind, Mental	Psychogenic tremor develops in stressful situations
ren-	Kidney	The ad <b>ren</b> al glands are on top of the kidneys
-rrhagia, -rrhea	Flowing	Rhino <b>rrhagia</b> is a runny nose
rhino-	Nose	A <b>rhino</b> plasty is a nose job

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Word Part	Meaning	Example
sarco-	Flesh	Kaposi <b>sarco</b> ma is a type of cancer
sclero-	Hardness, scarring	Scleroderma is a disease involving the hardening of the skin
spondy-	Spine	Spondylosis is osteoarthritis in the spine
-stasis	Stagnation, standing still	Stasis dermatitis is related to poor circulation
stoma-	An opening; mouth	Stomatitis is the development of inflamed lesions at the corners of the mouth
syn-, sym-	With	The two pubic bones come together at the <b>sym</b> physis pubis
thrombo-	Clot	Deep vein thrombosis is a risk factor for pulmonary embolism
therm-	Temperature	Hypothermia is the state of getting too cold
-trophy, -trophic	Nutrition, growth	Muscular dystrophy is a condition in which muscles degenerate
vaso-	Blood vessel	Raynaud syndrome involves sever <b>vaso</b> spasm in the extremities

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Term	Definition
Acute	Rapid onset, brief, can be severe
Chronic	Prolonged, long-term, can be low intensity
Complication	A process or event that occurs during the course of a disease that is not an essential part of that disease
Contraindicated	Describing an intervention that may have a negative outcome in a given condition
Demographic	An identified group of people about which information is gathered
Diagnosis	The determination of the nature of a disease, injury or defect
Endemic	A pattern of disease incidence that is limited to a particular population or area
Epidemic	Widespread outbreak of a contagious disease
Idiopathic	A disease of unknown origin
Incidence	The number of new cases of people falling ill with a specified disease during a specific period within a specific population
Indication	The basis for an intervention that is likely to have a positive outcome in a given condition
Lesion	A pathologic change in tissue
Morbidity	A diseased state; the ratio of sick to well people within a population
Mortality	Death rate from a specific disease
Pandemic	A contagious disease affecting the global population
Prevalence	The number of cases of a disease existing in a given population during a specific period or at a particular moment; the proportion of people affected
Prognosis	Expected outcome of a disease or disorder
Sign	An objectively observable indication of a disease or disorder
Stenosis	A stricture or abnormal narrowing of any canal or orifice
Subacute	Between acute and chronic; a stage in healing or tissue repair
Symptom	A subjective experience relating to a disease or disorder
Syndrome	A collection of signs and symptoms associated with a specific disease process
Systemic	Describing a whole-body contraindication for massage, as opposed to a local contraindication
Trauma	Any physical or mental injury

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### **Infectious Agents**

A pathogen is any disease causing agent.

Exercise, nutrition and rest and a positive attitude affects the ability to fight these pathogens

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Five Basic Types	
Prions	
Viruses	
Bacteria	
Fungi	
Animal Parasites	

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### Prions

Comprised of proteins, but do not contain DNA or RNA

Causal Diseases	Spread via contaminated
Bovine Spngiform Encephalopathy (Mad Cow Disease)	transplant tissue, contaminated surgical instruments or consumption of infected meat products
Creutzfeldt-Jakob Disease	Affect the nervous system
(Human version of Mad	
Kuru	All are fatal
(seen among Cannibals)	
Scrapie	
(found in Sheep)	
Other Rare Diseases	
	Bovine Spngiform Encephalopathy (Mad Cow Disease) 

Cause infected cells to

produce more prions

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### Viruses

Packets of DNA or RNA wrapped in a protein coat

Stable Viruses Can live outside of host (ex. herpes, hepatitis B)

Unstable Viruses are fragile and disentegrate outside of host

Cannot replicate outside of host

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### Bacteria

Single -celled microorganisms that can survive outside of a host

Cocci Spherical bacteria that appear in predictable patterns

#### Staphylocci

Clump together in groups that resemble bunches of grapes

#### Streptocci

Cling together in chains

Bacilli Elongated and rod-shaped Most capable of forming spores

#### Spirochetes

Spiral bacteria Elongated bacilli that cause syphilis and Lyme Disease

#### Mycoplasma

Tiny bacteria that cause some STDs and pneumonia

Some bacteria are necessary for good health; others cause serious illness

Antibiotics are used to interfere with bacteria reproduction

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### Fungi

#### Includes yeasts and molds

Internal fungal infections due to imbalances that allow normal yeasts to replicate uncontrollable

(ex. candiasis)

External fungal infections (skin) (ex. ringworm, jock itch, athlete's foot)

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### **Animal Parasites**

Live in or on a host

#### Protozoa

Single celled organisms (diseases include malaria, giardiasis and amebic dysentery

#### **Helminths and Roundworms**

Parasitic worms that colonize various places in the body including gastrointestinal tract, liver and urinary bladder.

#### Anthropods

Head lice, crab lice and the mites that cause scabies that colonize human skin. All are bloodsuckers.

Others Spread throughout the blood

Back Copyright HandsOn Therapy Schools 2009 Serve as vectors for other contagious diseases

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# **Definition of Terms Hygienic Practices**

Term	Definition
Antisepsis	Prevention of infection by inhibiting the growth of infectious agents
Disinfection	Destruction of pathogenic microorganisms or their toxins by direct exposue to chemical or physical agents. Described as: low level: not effective against stable viruses or spores intermediate level: not effective against spores high level: effective against some spores and all other bacteria, fungi and viruses
Sterilization	Destruction of all microorganisms in a given field, accomplished with baking, steam under pressure or chemicals under pressure
Sanitation	Use of measures designed to promote health and prevent disease
Plain Soap	Any detergent that contains no/small amounts of antimicrobial products
Antimicrobrial Soap	Detergent that contains antimicrobial substances
Alcohol-based Hand Rub	Contains 60%-90% alcohol
Universal and Standard Precautions	Set of protocols that were introduced in 1987 to create some uniformity in how medical professionals should limit contact with body fluids in the working environment.

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### Hand Washing

Removes new dirt and some transient bacteria (temporarily)

#### **Alcohol based Gels**

Fast and Convenient

Effective against bacteria (not spore forming) and viruses

Alcohol soaked towelettes not recommended

Skin drying may occur -- moisturizing lotion must be used

#### **Antimicrobial Soap**

Risk of allergic reaction or dermatitis

May accelerate mutation of drug resistant forms of bacteria

Running warm water plus plain soap for 30 seconds is adequate for everyday use

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### **Other Hand Care**

Any open lesions must be covered during a massage

Be mindful of Hangnails

Fingernails must be kept short

Artificial nails should be avoided

Simple Bandage -----or Liquid Bandage -----or

Latex Sheath (replaced after every sessions

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### Care of Surfaces and Equipment

Provide a clean/unused environment for each client

Fabrics Clean for each client

Tables, Chairs and other EquipmentSwab with bleach solution before re-use

Massage Environment Vacuum/Sweep/Mop frequently Therapists clothes should be clean and fresh

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### Inflammation

A tissue response to damage or the treat of invasion by antigens

Vascular Activity Tissue is damaged by trauma (ex. laceration, sunburn, etc)

#### **Cellular Activity**

Many cells are recruited to manage tissue damage and contamination:

Endothelial Cells: release chemicals that activate platelets and release white blood cells Platelets: become jagged and sticky to form clot White blood cells: <u>Granulocytes</u> - released in early stages

Mast Cells - release histamine that reinforce and prolong the response

Monocytes and macrophages - clean up cellular debris to prepare for healing

<u>Lymphocytes</u> - resolution of inflammation <u>Fibroblasts</u> - produce collagen Signs of Inflammation Pain Heat Redness Swelling Loss of Function (sometimes)

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### **Stages of Healing**

Extremely complex coordination of vascular, cellular and chemical components

#### Acute Stage

1-3 days in length Vasoconstriction and dilation Accumulation of fluid Attraction of platelets and fast-moving white blood cells

#### Subacute Stage

2-3 weeks in length (depending on severity) New cells formed Damaged cells are cleaned up

#### **Postacute Stage**

New collagen is remodeled and reshaped, becoming denser and aligns with adjacent cells

Chronic Inflammation can occur when the inflammatory process is not successful and the pathogens or irritants are not removed from the body

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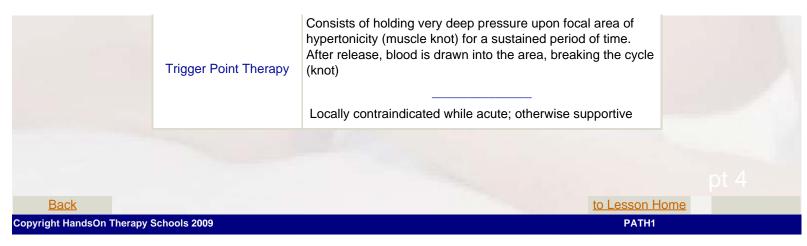
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### Massage?

Bodywork may be helpful in flushing out debris and improving sluggish and congested circulation in the postacute stages

Modality	Explanation/Recommendation
Deep Tissue Massage Myofascial Release	Gradual application of pressure and attentive waiting for release
	May be used if not acute and not infectious. Avoid local work when tissue is compromised; work away from the area
Lymphatic Drainage	Gentle pumping and stimulation of the lymphatic system
	Contraindicated while acute; indicated if no infection is present
Polarity Therapy Reiki	Based on Three levels of touch: Soft (gentle, non-reactive); Rocking (stimulating); Dispersing (heavier, more reactive)
	Locally contraindicated while acute; supportive above and below injury site
Proprioceptive Neuromuscular Facilitation/Muscle	Incorporates an isometic contraction by the client prior to attempting to move farther in the desired direction
Energy Technique/Stretching	Locally contraindicated while acute; otherwise supportive
Reflexology	Pressure and massage of the reflex point found on the hands, feet, ears and head
	Indicated; work lymphatic system, lungs, diaphragm and heart points
Shiatsu	Uses thumbs, fingers, palms, forearms and feet to apply pressure along the meridians and points seen on acupuncture charts
	Indicated with caution for edematous or pitting areas. Focus on K, SP, TH meridians, all meridians at site of injury
Swedish Massage	A systematic modality which incorporates five basic strokes: effleurage, pretrissage, friction, tapotement and vibration
	Indicated with caution when inflammation is related to injury, not infection or disease





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