**Common Medical Definitions Helpful in Foot Care**

**Abduction** – To move away from the midline. Opposite of adduction.

**ABX** – Abbreviation for “antibiotics”

**Accommodative Shoes** - Shoes designed specifically for protection of high risk feet with structural abnormalities that can lead to ulcerations. An accommodative shoe usually fits the shape of the foot with a wide toe box and good arch support.

**Adduction** – To move toward the midline. Opposite of abduction.

**Ankle Brachial Index** - The Ankle-Brachial Index (ABI) is the ratio of the systolic blood pressure at the ankle to the systolic blood pressure in the upper arm (brachium). Compared to the arm, lower blood pressure in the leg is an indication of blocked arteries due to peripheral artery disease (PAD). See Toe Brachial Index.

**Avulsion** – Removal of nail plate from the nail bed. Either partial or total nail plate is removed depending on what is necessary to allow the infected adjacent skin to heal well.

**Bactericidal** – Capable of killing bacteria.

**Bacteriostatic** – Capable of inhibiting growth of bacteria, but not killing them.

**Bilateral** – Affecting both sides of the foot or both feet.

**Bioburden** – An indication of microorganisms present on skin, instruments, wounds, etc

**Brannock Devise** – A device for accurately measuring shoe size.

**Bunion** - A bunion is a deformity of the joint connecting the big toe (hallux) to the first metatarsal. It is characterized by medial deviation of the first metatarsal bone and lateral deviation of the (known as the metatarsophalangeal joint). Formal name: hallux abducto-valgus.

**Bursa** – A capsule of fluid which forms at an area of tissue friction or pressure. Also a fluid filled sack that functions as a gliding surface to reduce friction between tissues inside the body

**Callus** - A callus (or callosity) is a toughened area of skin which has become relatively thick and hard in response to repeated friction, pressure, or other irritation. Rubbing that is too frequent or forceful will cause blisters rather than allow calluses to form. Since repeated contact is required, calluses are most often found on feet because of frequent walking. Calluses are generally not harmful, but may sometimes lead to other problems, such as skin ulceration or infection.

**Capillary Refill** - Capillary refill time (CRT) is defined as the time taken for color to return to an external capillary bed after pressure is applied to cause blanching. It can be measured by holding a foot higher than heart-level and pressing the soft pad of a toe until it turns white, then taking note of the time needed for the color to return once pressure is released. Normal capillary refill time is usually less than 4 seconds. Although literature varies as to what constitutes “normal”.

**Cellulitis** - A bacterial infection involving the dermis and subcutaneous fat. Signs and symptoms include an area of redness which increases in size over a couple of days. The borders of the area of redness are generally not sharp and the skin may be swollen. While the redness often turns white when pressure is applied this is not always the case.

**Charcot Foot** - Charcot Foot is the name of a condition that often evolves secondary to peripheral neuropathy. The nerve damage causes a loss of sensation that increases the risk of injury to the feet. When the foot is repeatedly injured, the weight-bearing joints start breaking down. Early signs of Charcot foot include redness, swelling, and increased temperature of the foot.

**Claudication** - a condition in which cramping pain in the leg is induced by exercise, typically caused by obstruction of the arteries. This can be an important sign/symptom of severe peripheral vascular disease.

**Claw Toes** - A normal toe has all its joints – the proximal (PIP) and distal (DIP) interphalangeal joints – lined up in a straight line. In the foot condition known as claw toes, the PIP and/or DIP joints are not lined up perfectly in a 180-degree line; they may be at 30 or 45 degrees or more. This makes the toe appear as if it were a claw. Hence the name claw toes refer to this condition.

**Contaminated** – The presence of potentially infectious microorganisms.

**Corn** – A hyperkeratotic thickening of skin in a small area. Often caused by pressure or friction.

**Debridement** - the removal of damaged tissue or foreign objects from a wound. May also indicate trimming and sanding of thickened dystrophic or fungal toenails.

**Dependent Rubor** – A dark (red or brown) discoloration of a foot and leg when it is held in a dependent position. Often reflects venous disease.

**Disinfectant** – A liquid chemical agent capable of killing most microorganisms, but not all bacterial spores. It should only be used on inanimate objects and surfaces.

**Doppler Ultrasound** – A form of ultrasound that can detect and measure blood flow.

**Dorsal** – The upper (top) side of the foot.

**Dorsiflex -** Flexion of the foot at the ankle in an upward direction.

**Dystrophic** - Nail dystrophy refers to poor nail formation, usually as the result of trauma or infection. It is a general term which can be applied to thick, crumbly, misshapen toenails.

**Edema** - Edema is a swelling, usually of the legs, feet, and/or hands due to the accumulation of excessive fluid in the tissues.

**Equinus** - Equinus is a condition in which the upward bending motion of the ankle joint is limited. Someone with Equinus lacks the flexibility to bring the top of the foot toward the front of the leg. Equinus can occur in one or both feet. People with Equinus place more pressure on the plantar forefoot area when they walk. This makes them vulnerable to calluses or ulcerations on that area.

**Erythema** - Redness of the skin caused by hyperemia (increased blood flow) in superficial capillaries. It occurs with any skin injury, infection, or inflammation.

**Ganglion Cyst** - A ganglion cyst that occurs in the foot is a mass that feels soft and is usually located on the top of the foot. The cyst varies in size, sometimes getting larger and other times appearing smaller. The cyst arises from the joint capsule or the sheath around the tendons. The inside of the cyst may be filled with waste matter or synovial fluid or both.

**Germicide** – A chemical agent that kills microorganisms, but not all bacterial spores. Germicides that are used on living surfaces (skin) are called antiseptics and those that are used on inanimate objects such as instruments and on surfaces are called disinfectants.

**Gout** - Gout is a form of acute arthritis that causes severe pain and swelling in the joints. It most commonly affects the big toe, but may also affect the heel, ankle, hand, wrist, or elbow. It occurs when there are high levels of uric acid circulating in the blood, which can cause urate crystals to settle in the tissues of the joints.

**Haglund’s Deformity** - A Haglund’s deformity of the foot occurs when the posterior (back) of the heel bone becomes enlarged. This enlargement irritates the Achilles tendon when shoes are worn and causes pain and inflammation. The pain is from joint inflammation and swelling at the back of the heel.

**Hallux** – Great Toe

**Hallux Limitus/Hallux Rigidus** - Hallux Limitus refers to a stiffened big toe joint (MTP) which is unable to move in the up or down direction. Since movement of the big toe in these planes is important for walking, pain results in the big toe. Whenever there is restricted movement in the body anywhere, pain results. A more severe version is called Hallux Rigidus.

**Hammertoe** - A normal toe has all its joints – the proximal (PIP) and distal (DIP) interphalangeal joints – lined up in a straight line. In hammer toes, the PIP joint – the joint closest to where the toe joins the foot – is not lined up perfectly in a 180-degree line. The joint juts out at a 30 or 45 degree angle or sometimes more. This makes the toe appear as if it were a hammer. Hence the name “hammer toes” refers to this condition. A hammer toe curls downward; however, one part of it extends upward above the level of the other toes. This part rubs against the shoe that a person wears and the friction begins to wear down the toe. The toe afflicted with hammer toe then can develop a callus.

**Heel Fissure** - Heel fissures are cracks in the smoothness of the skin overlying the heel. The cracks are usually accompanied by skin that is hardened or dry. Sometimes the skin may become flaky. The deeper the heel fissures, the more painful they are. Some heel fissures may bleed. There is a risk of infection from deeper fissures.

**Hemosiderin** - Hemosiderin hyperpigmentation is discoloration on the lower legs. It is due to deposits of heme pigmentation. It is commonly associated with long-standing venous stasis disease.

**Hemostasis** – Control of bleeding. A process which causes bleeding to stop, meaning to keep blood within a damaged blood vessel (the opposite of hemostasis is hemorrhage).

**Hyperkeratosis** - Overgrowth of the cornified epithelial layer of the skin. Also called: callus, corn.

**Iatrogenic** - An injury that is inadvertently by a clinician or by medical treatment or diagnostic procedure. When toenail sanding causes a scratch or cut - this is an iatrogenic lesion.

**Inflammation** – A localized reaction that produces redness, warmth, swelling and pain as a result of infection, irritation or injury.

**Intermittent Claudication** - The leg pain produced by claudication is usually experienced during walking. It can feel like cramping in the thighs, calves, hips, or feet. The pain stops several minutes after the person rests, but returns when the person performs activities that use the leg muscles. It is a sign/symptom of significant peripheral vascular disease.

**LOPS – Loss of Protective Sensation** - A type of numbness in the feet and legs caused by comorbidities such as diabetes. It is often tested by the 5.07 - 10gram Monofilament on the feet.

**Lymphedema** - Refers to swelling that generally occurs in one arm or leg. Lymphedema is most commonly caused by the removal of or damage to your lymph nodes as a part of cancer treatment. It can also be caused by pressure from skin folds (panus) in obesity. The blockage prevents lymph fluid from draining well, and the fluid buildup leads to long term skin damage and thickening. Normal edema control socks and wraps have only limited effectiveness because of the blockage.

**Matrixectomy** - The process of surgically or chemically destroying all or part of the base nail portion called the nail matrix. Complete destruction of the nail matrix results in permanent loss of that portion of the nail. Once the nail matrix is fully removed or destroyed, a new nail plate cannot ever be regenerated. This procedure is commonly curative for recurrent cases of ingrown toenails.

**Metatarsalgia** - The metatarsal bones are the bones that make up the ball of the feet. Metatarsalgia refers to pain in the ball of the foot anywhere from the first through the 4th metatarsals. The pain is usually located right over the metatarsal that is inflamed. Or it can be across the entire plantar forefoot.

**Monofilament** – Sensory assessment device made of a nylon filament. It is used to determine if the sensation “feeling” in the feet is decreased due to comorbidities such as diabetes. Peripheral Neuropathy

**Morton’s Neuroma** – The inflammation of a nerve between the 3rd and 4th metatarsal heads. This causes symptoms including burning sensation, sharp pain, tingling sensations, numbness in the foot, and cramping.

**Neuropathy** – Any disease or malfunction of the nerves. Symptoms include: numbness, strange hot or cold sensations, lack of sweating or increased sweating, and loss of feeling. Often peripheral neuropathy felt by diabetics is accompanied by loss of feeling in the legs and feet, making it difficult to walk.

**Offloading** – The use of felt or foam pads, shoe inserts or shoe modifications to redistribute pressure over a bony prominence on the foot. A method to relieve pressure points and prevent skin damage such as blisters and ulcerations

**Oncholytic/Onycholysis** - Onycholysis is the loosening or separation of a fingernail or toenail from its nail bed. It usually starts at the tip of the nail and progresses back.

**Onychomycosis** - Onychomycosis is a fungal infection of the fingernails or toenails. The actual infection is of the bed of the nail and of the plate under the surface of the nail.

**Orthopedic Footwear** - Orthopedic shoes are specially designed shoes that provide support and pain relief for people suffering with some type of pain or deformity in the legs, ankles, or feet.

**Osteomyelitis** - Osteomyelitis is an infection that spread to the bone.

**Overlapping Toes** - Overlapping of the toes is a condition where the toes are out of alignment. Example: Sometimes in Bunion deformities, the lateral displacement of the Great Toe/Hallux pushes the second toe laterally. Eventually the second toe may be forced up on top of the third toe. It overlaps the third toe.

**Pallor** - Paleness is abnormal loss of color from normal skin.

**Paronychia** - Paronychia is a soft tissue infection around a toenail that begins as an irritation or mild infection but that may progress to an abscess.

**Pedal** – Relating to feet

**Pedorthist** - A professional who has specialized training to modify footwear and employ supportive devices to address conditions which affect the feet and lower limbs. They are trained in the assessment of lower limb anatomy and biomechanics, and the appropriate use of corrective footwear – including shoes, shoe modifications and other pedorthic devices.

**Peripheral** – Situated away from the center, as opposed to centrally located.

**Peripheral Neuropathy** – A problem with the functioning of the nerves outside the spinal cord. As in the legs or feet. Symptoms may include numbness, weakness, burning pain and loss of reflexes.

**Plantar** – The lower (bottom) side of the foot.

**Plantar Fasciitis** - Plantar fasciitis causes the inflammation of the plantar fascia ligament which runs along the bottom of the foot. The plantar fascia ligament is made of fibrous bands of tissue and runs between the heel bone and your toes and stretches with every step. Inflammation develops when tears occur in the tissue.

**Plantar Fibroma** - A plantar fibroma is a pea-sized nodule that is found in the plantar fascia, a stretch of connective tissue from the toes to the heels on the bottom of the foot. Generally, a plantar fibroma is found in the plantar arch of the foot. This nodule is not cancerous but may enlarge. It can be painful but is benign.

**Plantar Wart** - A wart that develops on the bottom part of the foot. The skin may start to thicken and possibly look similar to a callus. On the surface of the wart, there may be black dots. (see - punctate bleeding)

**Punctate Bleeding** – Multiple very small brown or black spots on a skin lesion. Represents damaged capillaries. Most commonly diagnostic of a plantar wart.

**Plantarflex** - Movement of the foot in a downward direction.

**Pronation** - Pronation is the inward roll of the foot while walking or running.

**Prophylactic** – Something that is defending or protecting from disease or infection. A device or procedure that is preventative or protective.

**Prosthesis** - A device, either external or implanted, that substitutes for or supplements a missing or defective part of the body. Such as a leg prosthesis made to replace a leg which has been amputated.

**Proximal** – Near the point of origin or attachment. Opposite to “distal”.

**Pruritus** – Localized or generalized itching.

**Psoriasis** - A common chronic, inflammatory skin disease characterized by scaly patches.

**Pterygium** - An acquired condition characterized by a forward growth of the hyponychium. It is a skin appendage that is not connected to the nail plate. It contains a neuro-vascular bundle within the appendage. It is not painful to pressure or manipulation. But if it is cut with clippers, it causes significant pain and bleeding.

**PVD – Peripheral Vascular Disease** - The term peripheral vascular disease refers to peripheral artery disease (PAD) and/or Venous Insufficiency.

**Raynaud’s Disease** - A condition that can affect the toes and feet, as well as other parts of the body, leaving them cold and numb. The toes or one toe will also change color from normal color to white, blue or red, and there could be pain in them at times, as well.

**Rubor** - Redness, as one of the four signs of inflammation (rubor, calor, dolor, tumor)

**Sesamoiditis** - Sesamoiditis is the inflammation of the very small, jelly bean-like floating bones of the foot. A common symptom of sesamoiditis is pain in the ball of the foot, right directly over the location of the sesamoid bone. the foot where the plantar muscles and connective tissue on the bottom of the foot are inflamed.

**Skin Tear** - Skin tears are traumatic wounds that result from a separation of the 2 major layers of human skin, the epidermis and the dermis. The anatomy of the skin and the changes involved with aging are primary factors in the etiology of skin tears.

**Sterilization** – A process that results in the destruction of all microbial life.

**Supination** - When standing, supination occurs as the foot rolls outwards, placing most of the weight onto the outside of the foot and raising the arch.

**Toe Brachial Index** - The Toe-Brachial Index (TBI) is the ratio of the systolic blood pressure at the base of the Hallux to the systolic blood pressure in the upper arm (brachium). Compared to the arm, lower blood pressure in the leg is an indication of blocked arteries due to peripheral artery disease (PAD). It is more accurate than the ABI because the smaller arteries of the great toe are rarely calcified or blocked. See Ankle-Brachial Index.

**Topical** – Something on or applied to the surface of the skin.

**Turf Toe** - A sprain of the big toe joint that is usually the result of the toe bending upward violently. **Valgus** - A term meaning tilted outward or away from the midline of the body.

**Varus** - A term meaning tilted inward or toward the midline of the body.

**Common Medical Abbreviations Helpful in Foot Care**

A/P Assessment & Plan

AA Arteries

ABD Abduction

ABI Ankle Brachial Index

ABX Antibiotics

ADA American Diabetes Association

ADD Adduction

ADLs Activities of Daily Living

AFO Ankle-Foot Arthrosis

AKA Above Knee Amputation

ALF Assisted Living Facility

AMA Against Medical Advice

AMB Ambulation

ANT Anterior

AROM Active Range of Motion

ASA Aspirin

ASAP As Soon As Possible

B/L Bilateral

BKA Below Knee Amputation

BLE Bilateral Lower Extremities

BMI Body Mass Index

BP Blood Pressure

BX Biopsy

C/O Complains of

CC Chief Complaint

CRI Chronic Renal Insufficiency

CVD Cardiovascular Disease

D/C Discharge

DDX Differential Diagnosis

DF Dorsiflexion

DIP/DIPJ Distal Interphalangeal Joint

DIPJ Distal Interphalangeal Joint

DJD Degenerative Joint Disease

DM Diabetes mellitus

DOS date of Service

DP Dorsalis Pedis

DS/DZ Disease

DSG Dressing

DTRs Deep Tendon Reflexes

DVT Deep Vein Thrombosis

DX Diagnosis

ER External Rotation

ESR End Stage Renal

EV Eversion

F/U Follow-up

FB Foreign Body

FLEX Flexion

FROM Full Range of Motion

FWB Full Weight Bearing

FX Fracture

H&P History & Physical

H/O History of

HX History

I&D Incision & Drainage

ID Infectious Disease

IM Intramuscular

INFX Infection

INV Inversion

IP Interphalangeal

IPJ Interphalangeal Joint

IR Internal Rotation

KAFO Knee Ankle Foot Orthosis

L/Lt Left

LE Lower Extremity

LLE Left Lower Extremity

LOPS Loss of Protective Sensation

MM Muscle

MRSA Methicillin-Resistant Staphylococcus Aureus

MTP/MTPJ Metatarsal Phalangeal Joint

NKA No Know Allergies

NKDA No Known Drug Allergies

NN Nerves

NWB Non Weight Bearing

OA Osteoarthritis

OM Osteomyelitis

PCP Primary Care Provider

PF Plantar Flexion

PIP/PIPJ Proximal Interphalangeal Joint

PIPJ Proximal Interphalangeal Joint

PMH/PMHx Past Medical History

PRO Pronation

PROM Passive Range of Motion

PT Patient

PTA Posterior Tibial Artery

PVD Peripheral Vascular Disease

PX Prognosis

R/Rt Right

RA Rheumatoid Arthritis

RICE Rest, Ice, Compression, Elevation

RLE Right Lower Extremity

ROM Range of Motion

ROMI Range of Motion Intact

S/S Signs and Symptoms

SNF Skilled Nursing Facility

SSSI Skin and Skin Structure Infection

STJ Sub Tarsal Joint

SUP Supination

SW Standard Walker

SX Surgery

TBI Toe Brachial Index

TICS Orthotics

TMA Trans Metatarsal Amputation

TW Tolerated Well

TX Treatment

VV Veins

W/C Wheelchair

WBS Weight Bearing Status

WFL Without Functional Limitations

WNL Within Normal Limits