Names Commonly Used to Describe Brachial Plexus Injuries:
Erb’s Palsy (upper trunk injury)
Klumpke’s Palsy (lower trunk injury)
Brachial Plexus Palsy
Erb-Duchenne Palsy
Obstetrical Brachial Plexus Injury (OBPI)
Trauma-based Brachial Plexus Injury (TBPI)
"burners" or "stingers" (usually associated with sports-related injuries)

**ABDUCTION:** Movement of the limbs toward the lateral plane or away from the body. Example: Lifting the arm out to the side.

**ADDUCTION:** Movement of the limbs toward the medial plane of the body or toward the axial line of the limb. Example: Bringing the arm close to the body from the side.

**ADAPTATION:** The adjustment of an organism to its environment, or the process by which it enhances such fitness; the decline in the frequency of firing of a neuron, particularly of a receptor, under conditions of constant stimulation.

**ANTERIOR:** Toward the front or in front of.

**ATROPHY:** A wasting away, in the size of a cell, tissue, organ or part. (When muscles are not innervated, they atrophy.)

**AVULSION:** Tearing away. The nerve root has been torn out of the spinal cord.

**AXILLA:** The underarm area.

**BICEPS:** A muscle having two heads or origins applied particularly to a flexor in the arm, and to another in the thigh.

**BILATERAL:** Having two sides or pertaining to both sides.

**BRACHIAL:** Pertaining or belonging to the arm; as, the brachial artery; the brachial nerve.
GLOSSARY OF TERMS

BRACHIAL PLEXUS: A network of lower cervical and upper dorsal spinal nerves supplying the arm, forearm and hand.

BREECH DELIVERY: The extraction or expulsion of the fetus which occurs buttocks or feet first.

CERVICAL: Pertaining to the neck or to the neck of any organ or structure.

CERVICAL PLEXUS: A network of nerve fibers originating in the upper four cervical spinal cord segments. The cervical plexus distributes cutaneous nerves to parts of the neck, shoulders, and back of the head, and motor fibers to muscles of the cervical spinal column, infrahyoid muscles, and the diaphragm.

CLAVICLE: Also called the collar bone, it articulates with the shoulder on one end (at the acromion process of the scapula) and the sternum (breast bone) on the other.

CONTRACTURE: A condition of fixed high resistance to passive stretch of a muscle, resulting from fibrosis of the tissues supporting the muscles or the joints or from disorders of the muscle fibers.

CONTUSION: A bruise, an injury of a part without a break in the skin.

(CT) COMPUTERIZED TOMOGRAPHY MYELOGRAM: A diagnostic procedure where a radiopaque contrast dye is injected into the spinal canal. X-rays are then performed which reveal the anatomy of the spinal canal.

DELTOID: Adducts arm, anterior fibres flex and rotate arm medially, Posterior fibres extend and rotate arm laterally.

DIAPHRAGM: The thin muscle below the lungs and heart that separates the chest from the abdomen.

DORSAL: Naming a position more toward the back surface than some other object of reference.

DYSTOCIA: Difficult delivery.

ELECTROMYOGRAPHY (EMG): A test in which a small needle is inserted into muscle to record electrical activity inside the muscle.

EPISIOTOMY: A surgical incision into the perineum and vagina to prevent traumatic tearing during delivery.

EXTENSION: The movement by which the two elements of any jointed part are drawn away from each other.
EXTENSOR: A muscle which serves to extend or straighten any part of the body, as an arm or a finger; opposed to flexor.

FIBROUS TISSUE: Although most connective tissue has fibrillar elements, the term usually refers to tissue laid down at a wound site, forming a scar. Excessive contraction and hyperplasia leads to formation of a keloid.

FLACCID: Weak, lax and soft.

FLEXION: Moving a joint in the direction to bring it closer to the body. Example: "hand to mouth" movement.

FLEXOR: A muscle which bends or flexes any part; as, the flexors of the arm or the hand; opposed to extensor.

GESTATIONAL AGE: Fetal age of a newborn, calculated from the number of completed weeks since the first day of the mother's last menstrual period to the date of birth.

HORNER'S SYNDROME: A nerve condition which involves a dropping eyelid (ptosis), constricted pupil, enophthalmos (sunken eyeball) and lack of sweating on one side of the face. It is seen in association with injury to the cervical sympathetic nerve trunk in the neck.

INNERVATION: The nervous excitation necessary for the maintenance of the life and functions of the various organs including muscles. Example: if a muscle contracts then we know that it is innervated.

INTERCOSTAL: Situated between the ribs.

LUXATION: Complete dislocation of a joint, subluxation is partial dislocation of a joint.

MEDIAL: The side of the body or body part that is nearer to the middle or center (median) of the body. For example, when referring to the knee, medial would mean the side of the knee that is closest to the other knee, the opposite of medial is lateral.

MOTOR: A muscle, nerve or center that effects or produces movement.

MAGNETIC RESONANCE IMAGING (MRI): A special imaging technique used to image internal structures of the body, particularly the soft tissues. A MRI image is often superior to a normal X-ray image. It uses the influence of a large magnet to polarize hydrogen atoms in the tissues and then monitors the summation of the spinning energies within living cells. Images are very clear and are particularly good for soft tissue, brain and spinal cord, joints and abdomen.

MULTIDISCIPLINARY TEAM: A team of medical professionals that work together to support the patient; a multidisciplinary team for brachial plexus specialization would include a pedi-
atric neurologist, rehabilitation physician, and specialized and experienced surgeons.

**MUSCULOCUTANEOUS:** Pertaining both to muscles and skin; as, the musculocutaneous nerve.

**NEUROLOGIST:** A physician who diagnoses and treats disorders of the nervous system.

**NEUROLYSIS:** Surgical removal of all or part of a neuroma.

**NEUROMA:** A benign tumor composed of nerve cells; the scar tissue that forms when there is nerve damage.

**NEUROSURGEON:** A medically qualified specialist in surgery who has specialized in the surgery of the brain, spinal cord and other nervous tissue.

**OCCUPATIONAL THERAPIST:** A health care professional who provides services designed to restore self-care, work, and leisure skills to patients who have specific performance incapacities or deficits that reduce their abilities to cope with the tasks of everyday living.

**ORTHOPEDIC SURGEON:** A medically qualified specialist in surgery who has specialized in the surgery of bones.

**PARALYZE:** To affect or strike with paralysis or palsy.

**PASSIVE:** Neither spontaneous nor active, not produced by active efforts.

**PECTORALIS MUSCLES:** Muscular tissues attached to the front of the chest wall and extending to the upper arms. These are under the breast. They are divided into the pectoralis major and the pectoralis minor muscles.

**PERINEUM:** The region between the thighs, in the female between the vulva and the anus, in males, between the scrotum and the anus.

**PERIPHERAL NERVES:** The nerves outside of the brain and spinal cord, including the autonomic, cranial, and spinal nerves. Peripheral nerves contain non-neuronal cells and connective tissue as well as axons. The connective tissue layers include, from the outside to the inside, the epineurium, the perineurium, and the endoneurium.

**PERIPHERAL NEUROPATHY:** Injury to the nerves that supply sensation to the arms and legs.

**PHRENIC NERVE:** The motor nerve of the diaphragm. The phrenic nerve fibers originate in the cervical spinal column (mostly C4) and travel through the cervical plexus to the diaphragm.

**PHYSIATRIST:** A physician specializing in physical medicine and rehabilitation. Physiatrists
specialize in restoring optimal function to people with injuries to the muscles, bones, tissues, and nervous system.

**PHYSICAL THERAPIST:** A rehabilitation professional who promotes optimal health and functional independence through the application of scientific principles to prevent, identify, assess, correct, or alleviate acute or chronic movement dysfunction, physical disability, or pain.

**PLEXUS:** A network or tangle, a general term for a network of lymphatic vessels, nerves or veins.

**POSTERIOR:** Situated in back of or in the back part of or affecting the back or dorsal surface of the body. In lower animals, it refers to the caudal end of the body.

**PRESENTATION:** The relationship of the long axis of the fetus to that of the mother (also called lie). That portion of the fetus which is touched by the examining finger through the cervix or during labor, is bounded by the girdle of resistance.

**PROXIMAL:** Nearest to, closer to any point of reference, opposed to distal.

**RANGE OF MOTION (ROM):** The range through which a joint can be moved, usually its range of flexion and extension. Active range of motion (AROM) is the active movement of a muscle. Passive range of motion (PROM) is the motion range of a joint through manual assistance.

**RUPTURE:** Forcible tearing or disruption of tissue.

**SPONTANEOUS:** Proceeding from, or acting by, internal impulse, energy, or natural law, without external force; as, spontaneous motion; spontaneous growth.

**SUBSCAPULARIS ACTION:** Rotates arm medially, helps in adduction, abduction, flexion and extension.

**SUPINE:** Lying on the back.

**SUPRAPUBIC:** Above the pubic bone.

**SURAL:** Of or pertaining to the calf of the leg; as, the sural arteries or sural nerves.

**SYMPHYSIOTOMY:** A surgical procedure to effect an immediate dramatic increase in the size of the pelvic outlet to permit delivery of a baby. The cartilage of the symphysis pubis (where the pubic bones come together) is surgically divided in the procedure which can be a life-saver for the baby.

**TACTILE:** Of or pertaining to the organs, or the sense, of touch; perceiving, or perceptible, by the touch; capable of being touched; as, tactile corpuscles; tactile sensations.
TERES MINOR: Upper dorsal axillary border of scapula; rotates arm laterally and adducts it.

THORACIC: Pertaining to or affecting the chest.

TORTICOLLIS: A contracted state of the cervical muscles, producing twisting of the neck and an unnatural position of the head.

TRAPEZIUS ACTION: Rotates scapula to raise point of shoulder, adducts scapula, upper part raises scapula, lower part lowers and pulls scapula down, upper part draws head to same side and turns face to opposite side, two sides together draw head back.

TRICEPS ACTION: Extends and adducts forearm.