

APPENDIX C – DISABILITIES

Disability	Causes	Characteristics/Symptoms/Other	Subcategories	Red Flags/Ass. Disabilities	Cure/Meds	Applicable Adaptive Technique(s)
AMPUTATION	Traumatic = sudden or severe injury Surgical = associated with disease (e.g. cancer, gangrene, gout, diabetes and vascular complications)	Disarticulation = removal at the joint	Symes Amputation = removal of foot at the ankle	*Protecting residual limb: 1) cold 2) impact 3) dislocation	No cure	MONO, 3T
		Unilateral = on same side	Hip Disarticulation = remove leg but preserve pelvis and ischium Hemipelvectomy = 1/2 of pelvis and corresponding limb removed. Leaves only soft tissue of the buttocks.	*Poor circulation	Meds: None	
		Bilateral = on both sides	AK = above the knee and below hip BK = below knee and above ankle BE = between the elbow and the shoulder AE = between the elbow and the wrist Shoulder Disarticulation = entire arm at shoulder joint	*Possibly, insulin shock *Cancer *Diabetes		
ARTHRITIS	Inflammation of a joint	*Pain, swelling, stiffness and redness of joint	Rheumatoid = most serious, painful and crippling. Can attack the entire body	*Pain, discomfort	No cure	BI, MONO, 4T
		*Inflammation causes damage to tissue (muscle wasting, loss of range of motion, joint destruction and deformity)	Osteoarthritis = degenerative joint disease. Comes with age. May become severe. Does not cause general illness.		Meds: antiinflammatories	
		*Chronic condition with remission periods	* Ankylosing Spondylitis = cronic inflammatory arthritis of the spine. Attacks 10x more in women. Rheumatic Fever = acute disease which follows strep. Damages heart and causes short-term arthritis Gout = inherited disease which most often attacks small joints (e.g. big toe). Mostly men. Very painful.	*Crippling		
AUTISM	Neurological Disorder (pervasive developmental disorder)	*Probs with commun. and behavior *Shunning normal human interaction *Impaired ability to understand messages *Probs with sensory system *Hearing and language disorders *Inappropriate social responses *Sleep disturbances *Isolation *Seizures *Aggression *Repetitive actions		*Seizures (maybe) *Communication issues *Don't like to be touched *Behavior issues *MR (may or may not)	No cure Meds: anticonvulsants	DD

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CANCER		*Abnormal and uncontrolled growth of cells results in mass of tissue called tumor	Leukemia = cancer of the bone marrow	*Chemo: fatigue, low resistance to infection, depression, hair loss, nausea	Three treatments: 1)radiation, 2)surgery, 3)chemotherapy	3T, 4T
		*Malignant tumor = cancer	Sarcoma = cancer of the connective tissue	*Sarcoma amputation: if remaining tumor =>easy fracture		
CEREBRAL PALSY	Neurological disorder. Brain receives insufficient oxygen (anoxia) before, during or shortly after birth	*Part of the brain is permanently damaged or destroyed resulting primarily in impairment of voluntary muscle coordination	Spastic = most common type of CP. Constant contraction of muscles. Movements are jerky and contorted.	*Joint subluxation *Muscle spasms	No cure	DD, BI, MONO, 4T
		*Non-progressive *If cannot relax muscles, joints take all the impact of falls *Scissor gait	Athetoid = constant, slow writhing movements of the upper extremities (arms and head). Muscles may be very unsupportive => bracing in wheelchair		Meds:	
		Dysarthria = slurred speech (does not signify cognitive issues)	Dystonic/Rigid = extreme rigidity of muscles. Almost no flexibility	*MR (w/ dystonic) *Seizures (w/ dystonic)	Antispasmodics, anticonvulsants, analgesics	
		Hypertonic = extremely tensed muscle groups Hypotonic = loose muscle groups	Ataxic = least severe. Short, jerky movements Flaccid = Very little muscle tone			
DEVEL. OR COGNITIVE DISABILITIES	Developmental = before 18 yrs Cognitive = after the age of 18 Organic = caused by illness	*Organic causes may be progressive (continue to develop, e.g. MD), static (e.g. CP) or in remission (e.g. MS)	MR, CP, Autism, Epilepsy, Downs Syndrome, Alzheimer's, Parkinson's, Huntington's, Cerebro-vascular disorders, brain tumors	See individual disabilities		DD
	Non-organic = caused by injury or trauma	*Organic brain injuries are classified as Acquired Brain Injuries (ABI)				
	Congenital = condition present at birth	*Non-organic brain injuries (TBIs) are usually static				
	Hereditary = genetic transmission from parent to child					
	Prenatal = existing or occurring before birth (w/ ref. to fetus)					
	Perinatal = occurring during the birth process					
	Postnatal = occurring after birth (w/ ref. to newborn)					

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DIABETES		Insulin imbalance. Blood sugar is elevated		*VI (Diab. Retinopathy) *Neuropathy *Skin ulcerations *Poor circulation	No cure. Keep in check by keeping blood sugar regulated with medication, diet, exercise and blood sugar monitoring Meds: Insulin (Type 1)	BLV, 3T
		Hypoglycemia = low blood sugar	TYPE 1 = insulin dependent or juvenile onset. Body is insulin deficient. Need shots	*Thirst *Frequent Urination *Excess Weight *Susceptibility to infection		
		Insulin shock = too much insulin or sugar is gone. Dizziness, confusion, pale, sweating, flushed	TYPE 2 = non-insulin dependent. Body does not utilize insulin it produces properly. Most common. No shots			
EPILEPSY	50% no cause/ 50% brain injury			*Seizures	No cure.	
		Temporary electromechanical imbalance within the brain. Sudden overload of energy swamps the brain and results in seizure.	Grand mal seizures = most dramatic. Loss of consciousness (rigidity, jerking and falling), may notice and "aura", swallowing may be impaired, bladder and bowel control may lapse, seizure can last from seconds to 5 mins.	*TBI *ABI *CP (Dystonic)	Meds: Anticonvulsants	
			Petit mal seizures = unconsciousness may last only a few seconds -- may look like a blank stare. All brain processes cease. Other signs: muscle twitching, rolling or blinking eyes, fixed eyes			
			Psychomotor or Focal seizures = less frequent and severe. Eyes twitching.			
FETAL ALCOHOL SYN. (FAS)	Alcoholic mother	3 in 1,000 kids have FAS. Leading cause of MR in the US		*See Characteristics	No cure	DD
		Physical characteristics: small size and weight before and after birth, small head size, small eyes, underdevel. upper lip, impaired brain function		*MR *Heart, spine and limbs may also be affected	Meds: Sedatives, Psychostimulants	
		Behavioral characteristics: extreme activity, easy distraction, impulsiveness and perhaps bad judgment and communication problems				

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FRIEDREICHS ATAXIA	Hereditary	<p>*Appears in childhood</p> <p>*Steady, progressive degeneration of spinal column and cerebrum</p> <p>*Clumsy, uncoordinated movements (usually lower extremities first), and muscle imbalance (scoliosis)</p> <p>*Eventually spreads to hands and trunk</p> <p>*Speech disorders</p>		<p>*Joint subluxation</p> <p>*Scoliosis</p> <p>*Bilateral weakness</p> <p>*Lack of stamina</p> <p>*Neuropathy</p> <p>*Diabetes (10-20%)</p>	<p>No cure</p> <p>Meds: None</p>	BI, MONO, 4T
GUILLAIN-BARRE SYNDROME	Viral infection	<p>*Virus affects the peripheral nervous sys (all except the brain and spinal cord)</p> <p>*As virus runs its course some abilities may come back.</p> <p>*Symptoms range from muscle weakness to partial or total paralysis</p>		<p>*Depends on resulting level of disability (paresis or paralysis)</p> <p>*Balance issues</p> <p>*Lateral weakness</p>		BI, MONO, 4T
HUNTINGTON'S DISEASE	Hereditary	<p>*Progressive degeneration and shrinkage of brain tissue, esp. basal ganglia</p> <p>*Characteristics: abrupt, jerky uncontrollable movements that increase in intensity during stress or physical tasks</p>		Jerky movements		BI, MONO, 4T
LEARNING DISABILITIES		*Usually have average or above-average intelligence	<p>ADD = neurological syndrome that is usually hereditary. Characteristics: short attention span, impulsiveness, hyperactivity, restlessness</p> <p>Dyslexia = little-understood. Significant delay in one or more areas of learning (academic, impulse control, social competence)</p>	See ADD characteristics	<p>ADD: None/Psychostimulants, Ritalin</p> <p>Dyslexia: None/None</p>	DD

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MENTAL RETARDATION	<p>More than 250 causes in 2 categories:</p> <p>Medical = hereditary, trauma</p> <p>Social = lack of mental stimulation, physical abuse, poverty</p> <p>Primary medical causes:</p> <p>Prenatal abnormalities = due to genetic factors, congenital infections, drugs, radiation</p> <p>Postnatal factors = viral and bacterial infections, poisoning and head injuries</p> <p>Chromosomal abnormalities = largest number of genetic cases of MR. Downs, Fragile X (SEE BELOW)</p> <p>Abnormalities in Sex Chromosomes = Klinefelters and Turners syndrome</p> <p>Genetic Metabolic Disorders = Lowe's, Lesch Nyhan and Hunters</p> <p>Congenital infections = e.g. measles</p>	<p>*Sub-average intellectual ability</p> <p>*Involves difficulty in learning and social adaptation</p>	<p>Mild = 89% of cases, IQ 51-70, does not usually show until they enter school</p> <p>Moderate = 6%, IQ 36-50, indep. in familiar setting, can learn functional academic skill</p> <p>Severe = 3.5%, IQ 21-35, may develop talking and other communication skills and be able to care for personal needs</p> <p>Profound = 1.5%, IQ less than 20, responsiveness is minimal</p>	<p>Severe: VI and motor dysfunction</p> <p>Profound: secondary disabilities</p>		DD
FRAGILE X	*Chromosomal abnormality therefore hereditary	<p>*Single most inherited cause of mental impairment. Usually boys.</p> <p>* Mental impairment, ADD, hyperactivity, anxiety, unstable moods</p> <p>* Physical characteristics = long face, large ears, flat feet, hyper-extensible joints</p>		*Hyperextensible joints *MR	No cure	DD
DOWNS SYNDROME	*Chromosomal abnormality (have 47 vs. 46 chromosomes)	<p>*Physical characteristics = short neck, big tongue, oval-shaped eyes, short stature</p> <p>*Degree of MR can vary from mild to severe</p>		*Joint laxity *Atlantoaxial Sublex. * Shunts *Heart issues *MR	No cure Meds: Antiarrhythmias	DD

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MULTIPLE SCLEROSIS		<p>*Neurological disability where body's nerve fibers degenerate and become scarred (or sclerosed)</p> <p>*Scarring blocks electrical impulses along the nerve</p> <p>*Cycles of exacerbations and remissions</p> <p>*May experience paralysis or weakness of extremities, loss of stamina and balance</p>		<p>*VI</p> <p>*Remissions & exacerbations</p> <p>*Lability</p> <p>*Paralysis/weakness of limbs</p> <p>*Lack of balance</p> <p>*Fatigue</p> <p>*Possibly: dysarthria incontinence, aphasia</p>	<p>No cure</p> <p>Meds: muscle relaxants</p>	<p>BI, MONO, 4T</p>
MUSCULAR DYSTROPHY	Hereditary	<p>*Progressive and irreversible wasting of the muscle tissue</p> <p>*Degeneration of the muscle tissue originates in the muscle tissue itself</p> <p>*Voluntary and involuntary muscle functions are likely involved</p> <p>*As disease progresses, a wheelchair will eventually be needed</p> <p>*Onset can occur at infancy or late in life but usually manifests itself in early adulthood</p> <p>*Muscles 1st affected are those of pelvic girdle and upper legs and shoulder girdle and arms</p> <p>*Over time, MD will be fatal as the cardiac muscle it affected</p>		<p>*Joint sublexation</p> <p>*Fatigue/loss of stamina</p> <p>*Progressive weakness</p>	No cure	<p>BI, MONO, 4T</p>
POST-POLIO	Viral infection of the spinal cord causes paralysis of the muscles	<p>*Frequently affects lower extremities</p> <p>*Paralysis is permanent</p> <p>*May develop fatigue, shortness of breath and balance problems years later</p> <p>*Circulation problems and susceptibility to cold may occur</p>		<p>*Polio</p> <p>*Leg braces</p> <p>*AFOs</p> <p>*Fatigue</p> <p>*Poor circulation</p> <p>*Balance issues</p> <p>*Shortness of breath</p>	No cure	<p>MONO, 3T,4T</p>

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SPINA BIFIDA	Congenital anomaly of the spinal cord	<p>*Malformation of the spinal column occurring during fetal development (segments of the spine fail to fuse together leaving a space that allows the spinal cord to protrude)</p> <p>*Damage to the spinal cord</p> <p>*May be interruption in the flow of cerebrospinal fluid (CSF) which can cause increased pressure leading to brain damage unless shunts are surgically implanted to drain CSF from around brain</p>		<p>*Paralysis/Paresis</p> <p>*Shunts</p> <p>*Scoliosis</p> <p>*Latex allergy</p> <p>*Spinal stabilizers</p> <p>*Thermoregulation</p> <p>*AD (T-5 and above)</p> <p>*Tenderness around affected area of spine</p>	<p>No cure</p> <p>Meds: anticholinergics, Epi pin</p>	<p>BI, MONO, 4T</p>
SPINAL CORD INJURIES	Trauma	<p>*Spinal column is composed of bony vertebrae that encase the nerve tissue of the spinal cord</p> <p>*Biski is usually T-5 and above</p> <p>*Paraplegia = paralysis of legs</p> <p>*Paraparesis = partial paralysis</p> <p>Complete vs. Incomplete</p> <p>*T-1 and above, some degree of impairment of arms and/or hands</p>		<p>*Paralysis/paresis</p> <p>*Autonomic Dysreflexia (> T-5)</p> <p>*Thermoregulation</p> <p>*Spinal stabilizers</p>	<p>No cure</p> <p>Meds: Anticholinergics, antispasmodics, antibacterials, analgesics</p>	<p>BI, MONO, 4T</p>
STROKE AND BRAIN TRAUMA	<p>Both referred to as cerebrovascular accidents (CVA)</p> <p>Stroke = injury caused by a vascular accident</p> <p>Brain Trauma = injury caused by direct trauma w/ hemorrhaging and swelling</p>	<p>*Sudden weakness or other neurologic symptom that results from an injury to a blood vessel</p> <p>*Aphasia</p>		<p>*Hemiplegia</p> <p>*Hemiparesis</p> <p>*Seizures</p>	<p>No cure</p> <p>Meds: Anticonvulsants</p>	<p>DD, BI, MONO, 4T</p>

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TRAUMATIC BRAIN INJURY	Organic and inorganic causes: Organic = (ABIs) portion of the brain dies due deprived blood flow or oxygen as a result of a stroke, cerebral aneurysm, cerebral embolism, arterial occlusion Inorganic = gunshot wound or auto accident	*Hemiplegia or hemiparesis *Right hemiplegia = left brain injury and visa versa		Seizures	No cure Meds: Anticonvulsants, blood pressure meds, anticoagulants	DD, BI, MONO, 4T
VISUAL IMPAIRMENT						
Legal Blindness = 1) corrected vision of 20/200 or less in better eye or 2) peripheral field restriction to 20 degrees or less in better eye						
ALBINISM	Hereditary	*Lack of normal pigment in all or part of the body *Overly sensitive to light *May have imperfectly developed retina *Abnormal muscle movement may result in nystagmus		Photo-sensitivity	None	BLV
AMBLYOPIA	Can be congenital or developed at any time throughout life	*Uncorrectable poor vision				BLV
CATARACTS	Hereditary, age, congenital or caused by burns	*Opacities and clouding of lens which block the passage of light *Initial symptoms: dimmed, blurred or double vision, sensitivity to light		Light-sensitivity	Surgical removal	BLV
COLOR BLINDNESS	Hereditary or result of poisoning, retinal diseases or damage to the optic nerve	*Predominantly in males *Red/Green is most common. Total color blindness occasionally		No red light/green light		BLV
CONGENITAL EYE DEFECTS	Hereditary or a result of disease, nutritional deficiency during pregnancy or spontaneous chromosomal mutation		Defects include: glaucoma, abnormally small eyes, defects of iris, retina, cornea, lens or optic nerve			BLV
CORNEAL DISEASE	Injury or disorder within cornea	Blurred vision or blindness	Corneal ulcers or degenerative corneal conditions		Corneal transplant can often restore vision to near normal	BLV

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DIABETIC RETINOPATHY	Diabetes	<p>*Major cause of blindness</p> <p>*Severity is related more to duration of diabetes than to its stability (usually occurs when a person has had diabetes for 10 years)</p>	<p>Non-proliferative = milder but more common. Can cause serious vision loss due to damage to the macula. Caused by pathologic changes in blood vessels of the retina</p> <p>Proliferative = more severe. May cause total blindness. Severe bleeding in the back of the eye due to new abnormal blood vessels leads to scar tissue and possibly retinal detachment</p>	Diabetes	Laser surgery	BLV
DRY EYE	<p>Absent or faulty blinking</p> <p>Aging</p> <p>Environmental elements</p> <p>Contact lenses</p> <p>Medications</p> <p>Diseases that affect tear production</p>	*Two kinds of tears: constant and reflex				BLV
GLAUCOMA	Aging	<p>*One of leading causes of blindness in US</p> <p>*Fluid in eye fails to drain resulting in increased intraocular pressure</p> <p>*May cause slight to absolute blindness</p>	<p>Chronic Glaucoma = gradual rise in intraocular pressure causing progressive loss of peripheral vision (if untreated, late loss of central vision then blindness). Risk high for >35 w/ diabetes, myopia, family history of glaucoma</p> <p>Acute Glaucoma = presents itself suddenly. Characterized by pain and discomfort. Severe damage can occur in a short time.</p>		Meds: Beta Blockers, Pilocarpine, Carbonic Anhydrase Inhibitors	BLV
HYPERTENSION	Often present with diabetes	<p>*High blood pressure</p> <p>*May cause capillary permeability, microaneurysms, hemorrhages and macular edema</p>		<p>*Diabetes</p> <p>*Stroke</p>	Meds: Beta Blockers and Calcium Channel Blockers	BLV
MACULAR DEGENERATION	Age, but sometimes may be inherited	<p>*Progressive disease that affects the macula</p> <p>*Central area of blindness that grows as disease progresses</p> <p>*Does not lead to total blindness</p> <p>*Difficulty reading fine print</p>				BLV
MYOPIA		<p>*Near sightedness</p> <p>*Caused by eye being too long from front to back</p>				BLV
NYSTAGMUS	Congenital or a result of trauma or neurologic disease	*Both eyes oscillating				BLV

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RETINAL BREAKS/DETACHMENT	Natural degeneration or major trauma to the eyes	<ul style="list-style-type: none"> *Results in lost vision wherever the retina becomes detached *Can result in total blindness *Symptoms at outset include dark or irregular vitreous floaters, appearance of bright flashes or light or blurred peripheral vision 			Surgical reattachment	BLV
RETINITIS PIGMENTOSA	Hereditary	<ul style="list-style-type: none"> *Night blindness *Degeneration of the rods and cones (retinal sensors) in both eyes *Starts w/ ring-shaped area of blindness in peripheral field *Can be symptomatic in early childhood *Can lead to tunnel vision *Total blindness can eventually occur *Cataracts and macular degeneration can develop 		*Hearing impairment	No cure	BLV
STRABISMUS	Can be congenital or caused by disease or trauma	<ul style="list-style-type: none"> *When both eyes do not face in the same direction *May have double vision *Imbalance by one of the 12+ muscles that control eye movement 				BLV
TUNNEL VISION		Vision of 20 degrees or less				BLV