Categories of Impairment:

breathing, obesity, & chronic conditions

RACHEL STUCK

Breathing

Chronic Obstructive Pulmonary Disease (COPD)

- Emphysema:
 - Symptoms: shortness of breath, cough, difficulty breathing, exhaustion, weight loss, depression, fast heartbeat
- Chronic Bronchitis:
 - Symptoms: shortness of breath, cough, wheezing, chest pain, chest tightness, sore throat,

Asthma:

Symptoms: coughing, wheezing, difficulty breathing, chest tightness, fatigue

Comorbidities for COPD & Asthma:

• high blood pressure, impaired mobility, insomnia, sinusitis, migraine, depression, stomach ulcers, cancer

https://www.youtube.com/watch?v=15DBE6giDUA

Assistive Technology for Breathing

Propeller:



https://www.propellerhealth.com/

Wizdy Pets:



http://wizdygames.com/apps/wizdypets

Physiological Impairments & Assistive Technologies

Fibromyalgia

- Symptoms: widespread pain, fatigue, cognitive difficulties, depression, headaches,
- Assistive Techs: mobility aids (walkers, wheelchairs, scooters) braces or splints, orthotics,

Gastro-intestinal disease

- Symptoms: chronic abdominal pain, hiccups, nausea/vomiting, rumination, constipation, diarrhea, gas
- Assistive Techs: health monitoring app



Physiological Impairments & Assistive Technologies

Chronic Fatigue Syndrome

- Symptoms: extreme fatigue that does not improve with rest (no known cause)
- Assistive Techs: MyTherapy (disease management app)

Cancer

- Symptoms: fatigue, weight changes, cough, difficulty swallowing, persistent indigestion, unexplained joint/muscle pain, unexplained bleeding/bruising
- Side effects of Radiation: fatigue, irritation of skin, long term-heart problems
- Side effects of Chemotherapy: headaches, stomach pain, muscle pain, peripheral
- Assistive Techs: listed wigs, prostheses
 - Do these count as assistive technologies?

Heart Disease

Ischemic Heart Disease

- Symptoms: chest pain, chest pressure, shortness of breath
- Assistive Techs: health management apps

Other General Heart Disease Symptoms

- angina (chest pain sometimes radiating down the left arm or into the jaw);
- sensations of fluttering, thumping, pounding, or racing of the heart (palpitations);
- edema (swelling and fluid retention in the legs, ankles, abdomen, lungs, or heart);
- lightheadedness, weakness, dizziness, or fainting spells;
- breathlessness;
- chronic fatigue; and
- gastric upset (or nausea)



Diabetes

Type I

Symptoms: extreme fatigue that does not improve with rest (no known cause)

Type II

 Symptoms: dry mouth, blurred vision, fatigue, slow healing cuts, yeast infections, urinary tract infections, itchy skin

Assistive Techs:

- Vision aids (magnifiers)
- Portion plate
- Glucose monitor
- Watch/PDA reminder



Arthritis

Symptoms:

Fatigue

Joint: pain, tenderness, swelling, redness, warmth, stiffness

Loss of joint range of motion

Limping

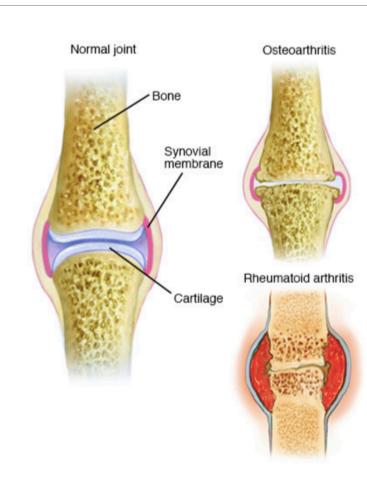
Joint deformity

Loss of joint function

Anemia

Fever

https://www.youtube.com/watch?v=DQrEK7BWF-k (0:53-1:30)



Arthritis

Assistive Techs:

- To get around:
 - Cane/crutch
 - Orthotics
 - Braces/Splints
 - Reachers
 - Taller chairs



http://www.arthritissupplies.com/



Kitchen:

- Double handed pots
- Electronic can/jar openers
- Larger knobs and levers



Arthritis

Bedroom:

- Large buttons, hooks, closers
- Voice activated lamp
- Sock aids
- Zipper pulls





Bathroom:

- Grab bars
- Shower chair



Obesity

Symptoms:

- Increases likelihood of: hypertension, high cholesterol, Type 2 diabetes, coronary heart disease, stroke, gallbladder disease, some cancers, mental illness, and osteoarthritis Sleep apnea and breathing problems
- Body pain
- Difficulty with physical functioning

Video:

https://www.youtube.com/watch?v=Jb8mPchlyfE

Obesity

Assistive Techs: food/diet apps,



Migraine

30.3% of adults suffer from severe headache or migraine

Symptoms:

- Moderate to severe headaches
- Headaches on one side of your head only
- Pulsating headache pain
- Headaches aggravated by routine physical activity
- Headaches that cause nausea, vomiting or both
- Headaches coupled with sensitivity to light and sound

Migraine

Assistive Techs:

- Anti-glare filter for computer monitor
- Air purification systems (for fragrance triggers)
- Sunglasses
- http://www.cefaly.com/
- Apps:
 - Brainwave tuner
 - Binaural Beats therapy
 - iHeadache/Headache Diary



Questions???

