

WHAT IS CANCER?

Cancer is developed when abnormal cell function occurs. Cancerous cells can develop within all parts of the body and can invade surrounding and distant sites by spreading through the blood vessels and lymphatic systems. If diagnosis and treatment are not administered in the early stages of the disease, cancer can be life-threatening.

HOW DOES EXERCISE HELP WITH CANCER?

The potential benefits of exercise during and after treatment are significant and research has proved its effectiveness. Exercising during chemotherapy can help ease side effects, such as fatigue and nausea, and can help to boost the immune system of those undergoing cancer treatments. Chemotherapy side effects can sometimes make exercising tough, but it's recommended to try to be as active as possible during treatment.

Benefits of an appropriately prescribed exercise program for this population include improved:

- » muscle mass, strength, power
- » cardiorespiratory fitness
- » physical function
- » physical activity levels
- » range of motion
- » immune function
- » chemotherapy completion rates
- » reduced anxiety and depression

THINGS TO REMEMBER

- » Patients who regularly exercised before treatment may find they need to exercise at a lower intensity level.
- » Avoid impact exercises if you have bony metastases (bone is common site for metastases).
- » Patients receiving chemotherapy may experience fluctuating periods of sickness and fatigue during treatment cycles that require frequent changes to exercise prescription, such as reducing intensity and/or duration of the exercise session.
- » Throughout treatment your immune system is often compromised and if your white blood cell count is low (lower than 3,500 white blood cells per microliter of blood), avoid public gyms, yoga studios, and other public places until your white blood cell count is at a safe level.

WHAT TYPE OF EXERCISE IS BEST FOR CANCER?

It is recommended that patients achieve 150 minutes of moderate-intensity exercise, or 75 minutes of high-intensity exercise (or an equivalent combination of these) every week. Two sessions of resistance exercise (muscle strengthening exercise) are also recommended each week.

- » **Aerobic exercise** is an excellent form of exercise to increase aerobic capacity and decrease the side-effects associated with anti-cancer therapy medications.
- » **Prolonged rhythmic activities** using large muscle groups. For example, walking, cycling or swimming.
- » **Resistance exercise and functional tasks** recommended. Weights, resistance machines, or weight-bearing functional tasks (e.g. sit-to-stands).
- » **Flexibility exercise** such as stretching or range of motion (ROM) exercises of all major muscle groups, as well as addressing specific areas of joint or muscle restriction that may have resulted from treatment with steroids, radiation, or surgery. For example, 4 repetitions of 10 to 30 seconds per stretch for flexibility.