

Fitness and Activity to Improve Health

A Breath of Hope Lecture
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My Background

The marvelous richness of human experience would lose something of rewarding joy if there were no limitations to overcome. The hilltop hour would not be half so wonderful if there were no dark valleys to traverse.

Helen Keller



My Background

What has changed?
A lot has changed.

Sandra K Rosenberg
1993



Objectives

To understand why to exercise

To understand how to exercise

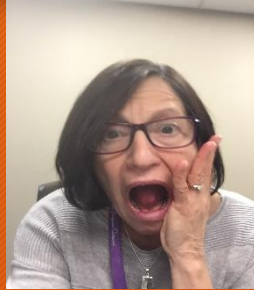
To reduce fears and inspire participation in this thing called life

GUIDELINES

Supportive cancer practice guidelines have advocated that attention to *physical, psychological, social and spiritual well-being* is of equal importance across all stages of the cancer continuum.

Traditional Cancer Care Continuum

Diagnosis



Surgery/Labs/Imaging



Treatment



Follow up



Taking Control and Helping Oneself

Merriam-Webster dictionary-EXERCISE

Noun

Bodily exertion for the sake of developing and maintaining physical fitness

Verb

to use repeatedly in order to strengthen or develop



Types of exercise

Moderate activities make you breathe as hard as you would during a brisk walk:

Walking
Biking
Housework
Gardening

Vigorous activities make you use large muscle groups , your heart beat faster, breathe faster/ deeper and make you sweat.

Types of Exercise

Aerobic - high repetition, low resistive

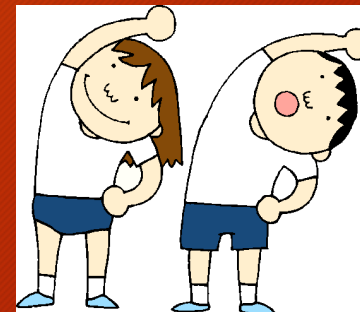


Resistive - strength training and loaded exercise



Combined - aerobic and resistive

Multimodal - includes stretch and balance



BENEFITS OF EXERCISE

Regular exercise helps prevent or manage health problems and concerns, including:

Stroke
Metabolic syndrome
High blood pressure
Cardiovascular disease
Type 2 diabetes
Depression
Anxiety
Arthritis
Falls
Many types of cancer

Mayo Clinic



Exercise and Obesity

Patients lose weight, improve small vessel circulation, improve immune responses with aerobic exercise.

Obesity and Cancer

Obesity:

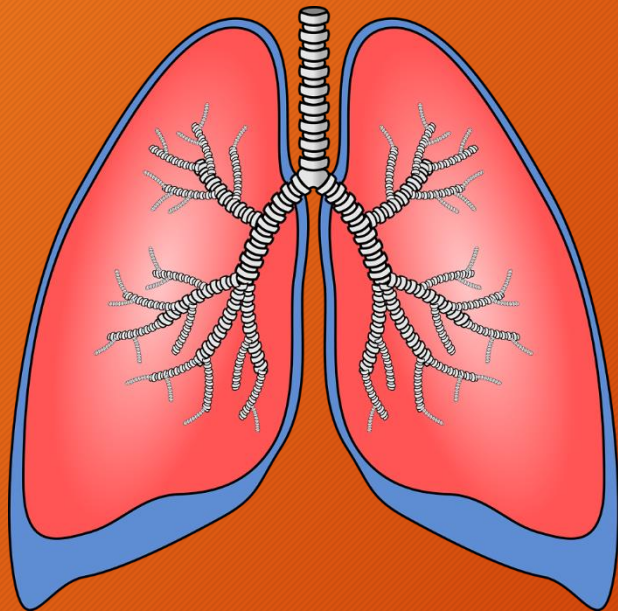
Colon, rectal, stomach, liver, gallbladder, pancreas, kidney, esophagus, uterine, breast, multiple myeloma cancers

Data limited yet for lung cancer

NEJM 2016



Lungs and Exercise



COPD

Aerobic and resistive exercises at low to moderate intensity with breathing training

Interstitial lung disease

High intensity aerobic activity with arm and leg resistance exercises

Lung transplant

Aerobic and resistive training

Exercise and Cancer

Most studied

Breast

Colon

Prostate

Breast Cancer



Long term high intensity exercise:

- Loss of fat
- Better cardiopulmonary function
- Decreased lymphedema
- Improved shoulder mobility
- Decreased risk of further breast cancer

Colon Cancer



Aerobic and combined exercise:

Decreased fatty tissue

Decreased fatigue

Better bowel function

Decreased risk of recurrent colon cancer

Prostate Cancer



Aerobic, resistive and combined exercise:

Improved cardiopulmonary capacity

Improved endurance

Less fatigue

If done high intensity, better oxygen uptake

Lower risk of death

Lung Cancer



Long term, moderate to high intensity aerobic, resistive and combined programs:

Improves immune function

Decreases anxiety

Decreases depression

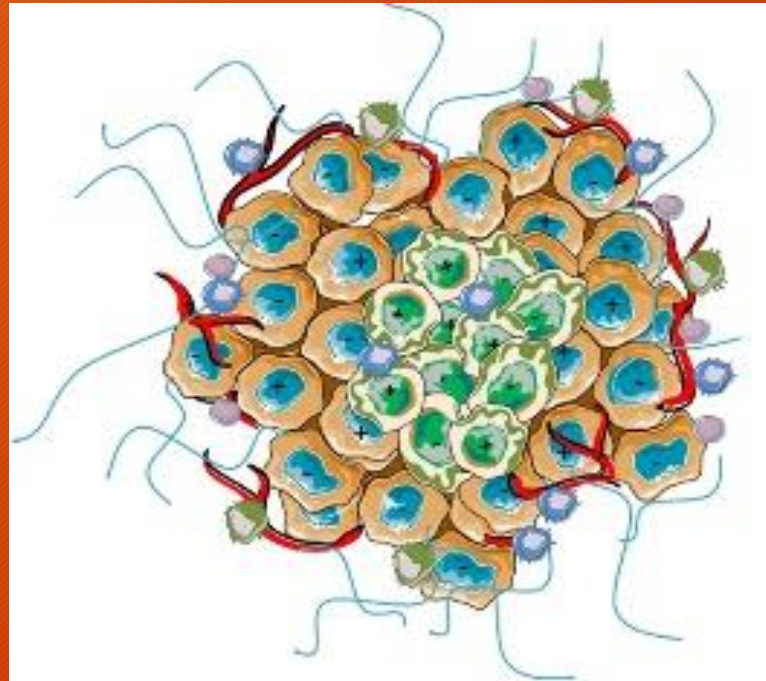
Decreases pain

Improves tumor treatment effects

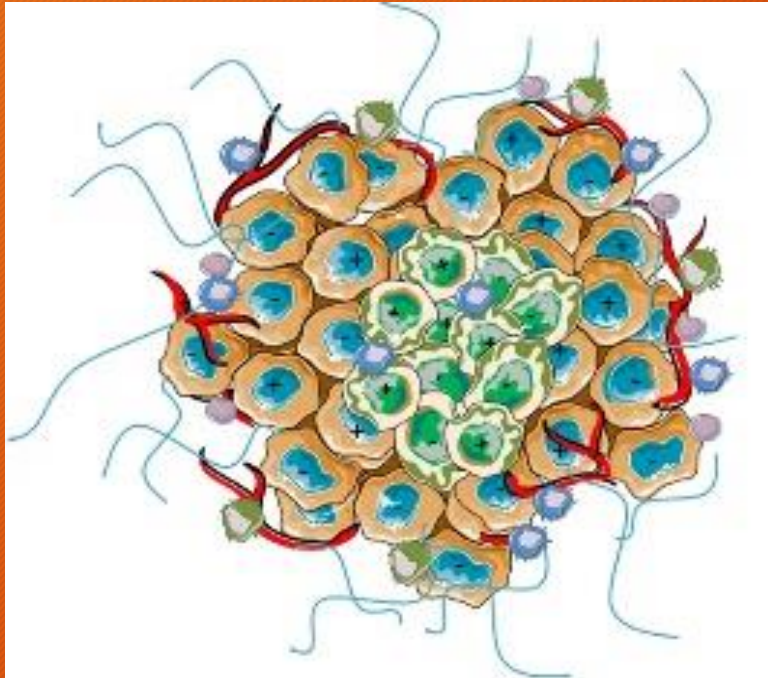
What May be Happening

Lowered levels of hormones (estrogen and insulin)
Decreases inflammation
Improves gastrointestinal mobility

What may be happening



What may be happening



Vascular normalization

In Review

- Decreases fatty tissue
- Decreases inflammation
- Normalizes vessels
- Improves oxygenation
- Decreases fatigue
- Decreases pain
- Increases endurance
- Increases strength
- Decrease anxiety
- Decreases depression

American Cancer Society Recommendations

150 minutes of moderate intensity or 75 minutes of vigorous intensity activity/week

Moderate activities make you breathe as hard as you would during a brisk walk:

Walking
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Housework
Gardening

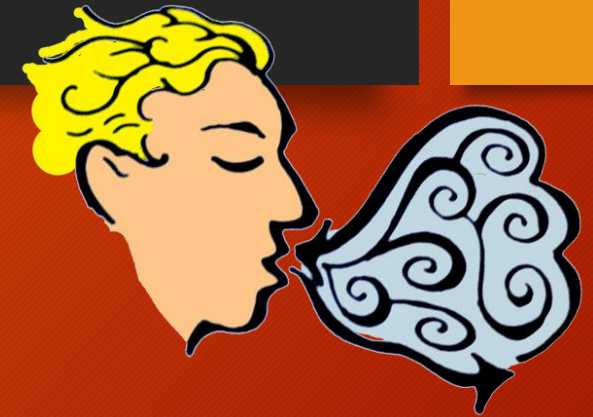
Vigorous activities make you use large muscle groups , your heart beat faster, breathe faster/ deeper and make you sweat.

How to get started

- Be creative
- Start slowly
- May modify-start at 5 minutes 3 times a day
- Progress slowly
- Work up to goal of 30 minutes aerobic exercise at least 5 days a week.
- Schedule it!!
- Bike, walk, elliptical, yoga, pilates, tai chi, pool exercise, dance, swim (if no sores and not in radiation)



Incorporate breathing exercises



Deep breathing

slow in through nose and out through mouth

Pursed lip breathing

keep lips together with slow even breaths

Active Cycle Breathing

take a deep breath and exhale forcefully

Exercise

Why?

To take control

To improve quality of life

To improve outcome

How?

Slowly, regularly, forgive yourself

Result?

To reduce fears and inspire participation in this thing called life



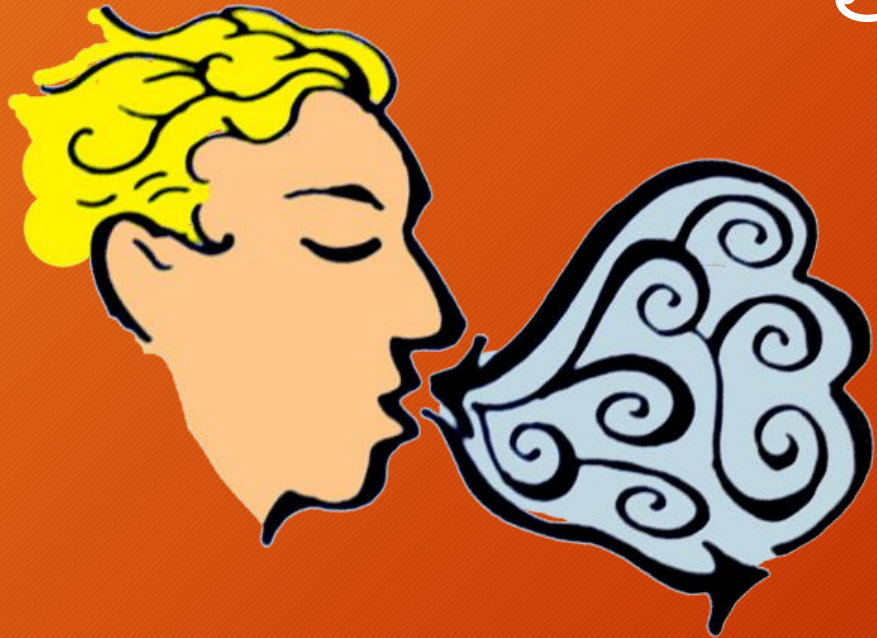


Minnesota Dragon Boat Club





Mndragonboat.org



Breath

of

Hope

Fini!