

October  
2011

# Medically-Based Fitness



## Cancer Awareness

Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems.

Cancer is not just one disease but many diseases. There are more than 100 different types of cancer. Most cancers are named for the organ or type of cell in which they start - for example, cancer that begins in the colon is called colon cancer; cancer that begins in basal cells of the skin is called basal cell carcinoma.

Cancer types can be grouped into broader categories. The main categories of cancer include:

**Carcinoma** - cancer that begins in the skin or in tissues that line or cover internal organs.

**Sarcoma** - cancer that begins in bone, cartilage, fat, muscle, blood vessels, or other

connective or supportive tissue.

**Leukemia** - cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of abnormal blood cells to be produced and enter the blood.

**Lymphoma and myeloma** - cancers that begin in the cells of the immune system.

**Central nervous system cancers** - cancers that begin in the tissues of the brain and spinal cord.

### Origins of Cancer

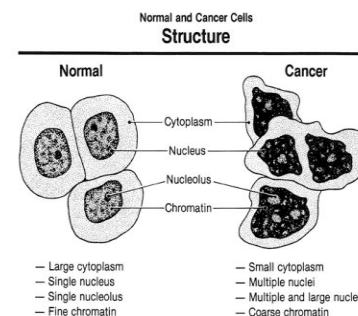
All cancers begin in cells, the body's basic unit of life. To understand cancer, it's helpful to know what happens when normal cells become cancer cells.

The body is made up of many types of cells. These cells grow and divide in a controlled way to produce more cells as they are needed to keep the body healthy. When cells become old or

damaged, they die and are replaced with new cells.

However, sometimes this orderly process goes wrong. The genetic material (DNA) of a cell can become damaged or changed, producing mutations that affect normal cell growth and division. When this happens, cells do not die when they should and new cells form when the body does not need them. The extra cells may form a mass of tissue called a tumor.

[www.cancer.gov](http://www.cancer.gov)



### Upcoming Events

#### Golden West Lecture

Physiologist, John  
Barclay, will give  
an informative talk  
on  
How to Get Better  
Sleep

*Tuesday, October  
25th at 2:00 p.m.*  
In the Golden West  
Dining Room

All are welcome to  
attend!



### How Common is Cancer?

Half of all men and one-third of all women in the  
US will develop cancer during their lifetimes



# MBF Superstar: Melissa

Anyone who has suffered the effects of a life-changing illness understands what a long journey it can be to recovery. Eight years ago, I contracted a bacterial infection that attacked my heart valve and required surgery to repair. As I rebuilt my life, it seemed that getting back in prime physical shape was an uphill battle. I tried to go to traditional gyms, but found that I didn't know how to accommodate my now-sensitive heart. In October of 2010, I turned to MBF for help. With the help of Greg Cooper, I made steady progress of rebuilding my strength and set the goal of participating in the *9/11 Memorial 14-er Challenge* – a fundraiser for the Fallen Firefighter's Association that would require climbing to the top of Gray's Peak – 14,267 feet. Even pre-surgery, this would have been a feat! Post-surgery, it seemed near impossible. But with a summer's worth of training at MBF and on local trails, I made the summit and stood on one of the highest peaks in Colorado! It was a great feeling of accomplishment and a testament to everyone who has helped along the way. Thanks, MBF for helping me get there!

## Exercise May Help Prevent Cancer

Research indicates that physical activity after a diagnosis of breast cancer may be beneficial in improving quality of life, reducing fatigue, and assisting with energy balance. Both reduced physical activity and the side effects of treatment have been linked to weight gain after a breast cancer diagnosis. One study found that women who exercised moderately (the equivalent of walking 3 to 5 hours per week at an average pace) after a diagnosis of breast cancer had improved survival rates compared with more sedentary women. The benefit was particularly pronounced in women with hormone responsive tumors. Another study found that a home-based physical activity program had a beneficial effect on the fitness and psychological well-being of previously sedentary women who had completed treatment for early-stage through stage II breast cancer. Increasing physical activity may influence insulin and leptin levels and influence breast cancer prognosis. Although there are several promising studies, it is too early to draw any strong conclusions regarding physical activity and breast cancer survival.

Two additional studies have suggested a protective association of physical activity after colon cancer diagnosis and survival. Researchers examined the relationship between levels of physical activity both before and after a diagnosis of colon cancer in two different observational studies.

Whereas levels of pre-diagnosis physical activity were not related to survival, participants with higher levels of physical activity post-diagnosis were less likely to have a cancer recurrence and had increased survival. Although these studies suggest protective effects of physical activity, more research is needed to understand what levels of physical activity provide these benefits.

<http://www.cancer.gov/cancertopics/factsheet/prevention/physicalactivity>

### New Semi-Customized Orthotic Product in Longmont

The MBF Longmont clinic is excited to introduce the **QUADRATEST** System. A unique product designed for every foot type that promises immediate patient results. Please call us with any questions.

**MCHUMOR.COM** by T. McCracken



"It's been murder since it was announced that eyes of newt might be a cancer cure."



## Medically-Based Fitness

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