

# PHYSICAL ACTIVITY IN WOMEN WITH BREAST CANCER

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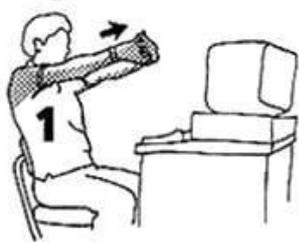
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According to statistics, women at the beginning of the 21st century most often get breast cancer. It is one of the most common malignancies of modern man in general. The consequences of cancer are multi-layered and multiple from the social aspect, and are also considered a global community problem. Breast cancer manifests itself in several clinical forms and in many different clinical courses, so that the prognosis is difficult and uncertain, and thus the outcome.

Numerous studies show that complete cure is associated with early detection of breast cancer and that in such cases patients do not have recurrences of the disease throughout their lives, and approximately 25% to 30% of total breast cancer cases should be prevented by lifestyle alone. In this context, physical activity is an excellent approach not only for prevention, but also as a potential support in the treatment of breast cancer.

A wide range of studies have been conducted to analyze this relationship, and they aim to find the best routines and use exercise in the treatment of breast cancer. Due to the systemic benefits of exercise in these women, the risk of complications associated with breast cancer is reduced

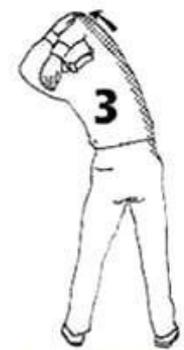
# 4 minuta da bolje mislite



dva puta  
10-15 sekundi



10-15 sekundi



svaka strana  
8-10 sekundi



15-20 sekundi



tri puta  
3-5 sekundi



svaka ruka  
10-20 sekundi



10 sekundi



10 sekundi



svaka strana  
8-10 sekundi



svaka strana  
8-10 sekundi



dva puta  
10-15 sekundi



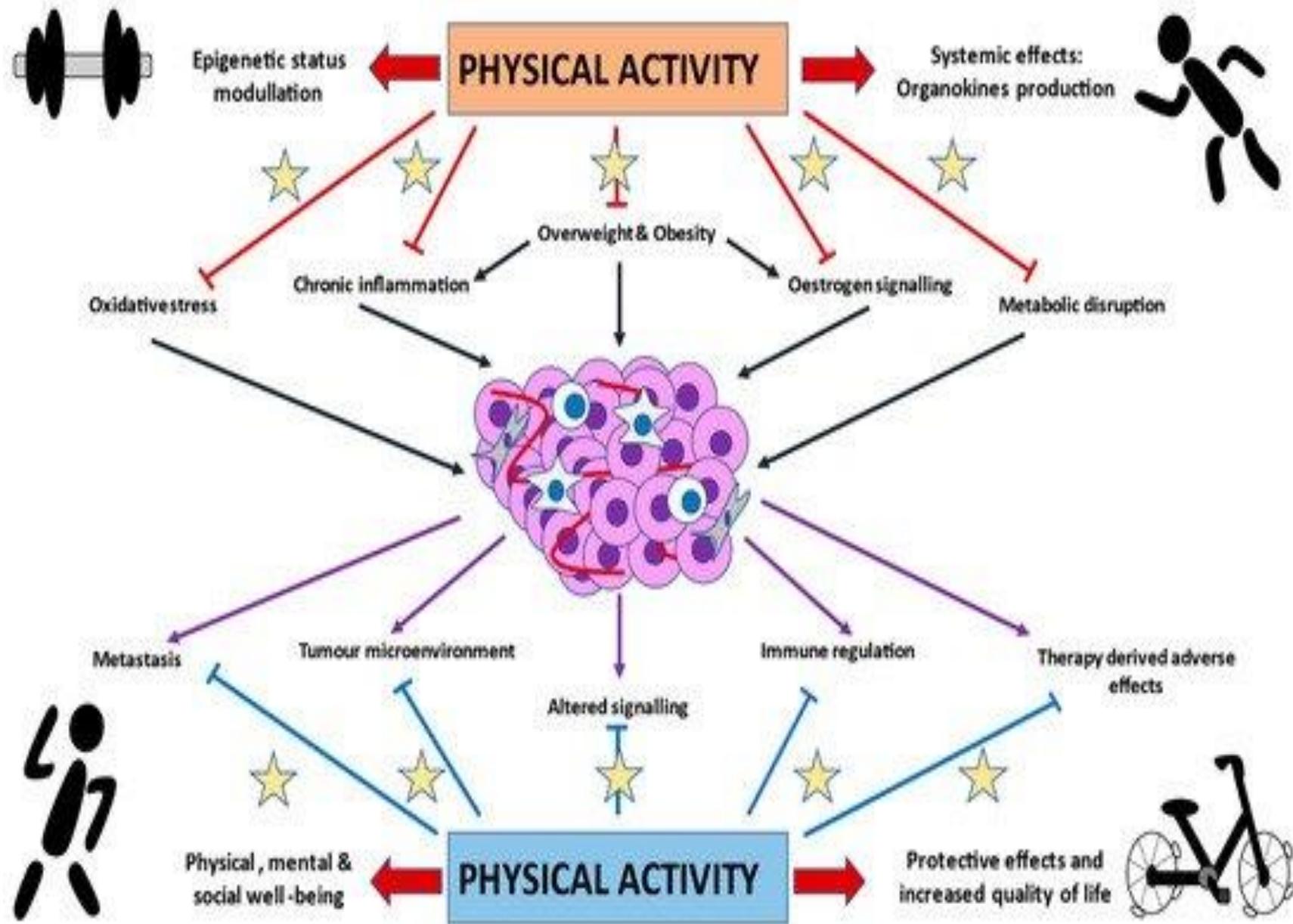
tresite ruke  
8-10 sekundi

## Physical activity as a prevention in breast cancer

Data from various studies show that physical activity (exercise) can reduce the incidence of breast cancer. In the prevention of breast cancer, physical activity has a more pronounced effect (more favorable) for postmenopausal people than for premenopausal people. Age is also an important factor to consider when reducing the risk of breast cancer associated with physical activity.

The protective effects of physical activity at different ages are about 16% during adolescence, 8% for early adulthood, 15% for middle adulthood, and 17% for women older than 50 years and older. In response to physical activity, there is a rapid change (activity) of immune cells in the circulation and in the peripheral lymph tissue.

Код поменутих локализација малигне болести примарна превенција се спроводи применом програмиране физичке активности и правилном исхраном. Постоје доследни докази да је до 90–95% укупних случајева рака повезано са животним стилем и факторима околине, превентивним мерама, бар следећим минимално утврђене препоруке за исхрану, вежбање и контролу тежине



Графички приказ потенцијалних ефеката физичке активности на рак дојке.

The advantage of regular physical activity should start with what is available, regardless of whether you are 10, 25 or 78 years old. The benefits are greater if physical activity is more regular.

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Without regular physical activity, the body slowly loses strength, endurance and the ability to function well. People who are physically active and have a healthy body weight live about seven years longer than those who are inactive and obese. In addition to the listed health benefits, moderate activity, such as brisk walking, can have other health benefits, such as: better blood circulation, which reduces the risk of many diseases.

One of the potential effects of physical activity in breast cancer is its effect on sex hormones, the levels of which vary depending on the status of menopause. Being overweight and obese also directly affect estrogen signaling. Therefore, the beneficial effects of physical activity on weight loss, body composition and immune and metabolic parameters seem to be the most important exercise activity in the prevention of breast cancer. Exercise has also been shown to be a key modulator of the immune system.

Consequently, physical activity can regulate various key processes such as appetite, energy homeostasis, or insulin sensitivity, which can have important implications for breast cancer.

Healthcare professionals should provide clear and detailed information on physical activity as soon as a cancer is diagnosed. Also, the aforementioned barriers need to be addressed, and further research is needed to describe more suitable strategies for the cancer treatment population.

# Conclusion

Physical inactivity is a significant risk factor for the development of malignant diseases. Insufficient physical activity (non-compliance with the WHO recommendation for physical activity) is estimated to be responsible for 10% of new breast cancer cases worldwide. For Serbia, it is estimated that insufficient physical activity is responsible for 19% of breast cancers

Physical activity directly interacts with the tumor and its micro-environment, which can be promoted as its use, additional therapy. This could lead to a significant increase in the quality of life of cancer patients, as well as its relationship with other parameters, including fatigue, pain, insomnia and social and emotional functioning. Therefore, physical activity significantly affects cancer prognosis and survival.