

# **Impact of exercise interventions on physical fitness in breast cancer patients and survivors: A Systematic Review**

## Authors

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## **Supplementary file:**

- 1. Search strategy for one database**
- 2. Levels of evidence and grades of recommendations**

## 1. Search strategy for one database

### Population

Woman diagnosed with breast cancer in treatment or survivors ['breast cancer', 'breast neoplasm']

### Interventions

Exercise or physical activity protocols ['exercise', 'physical activity']

### Comparators

Usual care, wait-list control, other exercise interventions

### Outcomes

Cardiorespiratory fitness, Strength, Fatigue, Quality of life

### Study design

Randomized Controlled Trials

### Limitations

Peer-review papers, published between January 2000 and November 2020

### Filters

Publication Date, Clinical Trial, Randomized Controlled Trial (Medline); Publication Date, Article, English (Scopus)

### Keywords

1. Breast Cancer
2. Breast Neoplasm
3. Exercise
4. Physical Activity

### Medline

| # | Searches | Results |
|---|----------|---------|
| 1 | 1 AND 3  | 787     |
| 2 | 1 AND 4  | 855     |
| 3 | 2 AND 3  | 742     |
| 4 | 2 AND 4  | 805     |

The search was conducted up to the 22<sup>th</sup> of November 2020, the same approach was adopted for all the screened database.

## 2. Levels of evidence and grades of recommendations

| Author                | Level of Evidence | Grades of Recommendation |
|-----------------------|-------------------|--------------------------|
| Campbell et al        | 2b                | C                        |
| Cešeiko et al 2019    | 1b                | A                        |
| Cešeiko et al 2020    | 2b                | B                        |
| Courneya et al 2003   | 1b                | A                        |
| Courneya et al 2013   | 1b                | A                        |
| Dieli-Conwright et al | 1b                | A                        |
| Hagstrom et al        | 2b                | C                        |
| Kiecolt-Glaser et al  | 1b                | A                        |
| Murtezani et al       | 2b                | B                        |
| Nikander et al 2007   | 2b                | C                        |
| Nikander et al 2012   | 2b                | B                        |
| Northey et al         | 2b                | C                        |
| Odynets et al         | 2b                | B                        |
| Saarto et al          | 2b                | C                        |
| Schmidt M. E. 2015    | 1b                | A                        |
| Schmidt 2012          | 2b                | C                        |
| Schmidt T. 2015       | 2b                | C                        |
| Schwartz et al        | 1b                | A                        |
| Scott et al           | 1b                | A                        |
| Segal et al           | 1b                | A                        |
| Stan et al            | 2b                | C                        |
| Steindorf et al       | 1b                | A                        |

Level of Evidence 1A= Systematic review (with homogeneity) of RCTs; 1B=Individual RCT (with narrow confidence intervals); 1C=All or none study; 2A=Systematic review (with homogeneity) of cohort studies; 2B= Individual Cohort study (including low quality RCT, e.g. <80% follow-up); 2C=“Outcomes” research; Ecological studies; 3A= Systematic review (with homogeneity) of case-control studies; 3B=Individual Case-control study; 4= Case series (and poor quality cohort and case-control study; 5=Expert opinion without explicit critical appraisal or based on physiology bench research or “first principles” \*From the Centre for Evidence-Based Medicine, <http://www.cebm.net>. Grades of Recommendation A= Level 1, Strong recommendation; B=Levels 2, 3 or 4, Recommendation; C=Levels 2, 3 or 4, Option; D=Level 5, Option. From American Society of Plastic Surgeons Evidence-based clinical practice guidelines. Available at: <https://www.plasticsurgery.org/documents/medical-professionals/health-policy/evidence-practice/ASPS-Scale-for-Grading-Recommendations.pdf>. Accessed February 12, 2021.