

# **Exercise & Prostate Cancer**

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# Tessa Higgins

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- **Cancer Rehabilitation Level IV exercise instructor since 2016 & revalidated in October 2022**
- **Health related exercise instructor for over 20 years**
- **Worked for 12 months exclusively for Macmillan Cancer Support on behavioural change project helping patients to integrate positive lifestyle changes including exercise on 1-2-1 basis in 2017**
- **Career in Medical Research & Pharmaceutical Marketing widening medical knowledge & understanding of cancer & cancer treatments**

**Why should I exercise?**

**Benefits specific to PC patients at different stages of disease and treatments**

**How should I exercise?**

**Local and online help**

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# **Why do exercise/physical activity if diagnosed with PC?**

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## **Exercise has been demonstrated to:**

- Help reduce the side-effects of hormone, chemotherapy and radiation therapy + potentially enhance chemo and radiotherapy effectiveness**
- Improve quality of life**
- Delay disease progression and improve survival**

# Benefits - ADT

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- **Exercise is one of the most important ways to mitigate the cardiovascular and metabolic risks of Androgen Deprivation Therapy (ADT)**
  - **ADT Side effects include:**
    - **Fatigue, weight gain, loss of muscle mass, reduced bone density, risk of metabolic disease, menopause-like symptoms**

# **Benefits – ADT and Fatigue**

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**Research shows that progressive exercise (building up to 150 mins per week) is arguably the BEST medical management strategy to reduce treatment related fatigue**

# **Benefits - Body Composition, Muscle Mass and Abdominal Fat**

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- **Research shows that men who complete 2-3 sessions of progressive resistance training per week minimise the loss in muscle mass and strength**
- **For men taking ADT a combination of moderate to high intensity aerobic and resistance training helps prevent changes in fat mass and development of metabolic syndrome**

# Benefits - Bone density

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- Preliminary research shows that at least 2 sessions of resistance training per week may mitigate losses in bone density
- Impact exercises such as jumping, hopping and stamping may preserve bone more effectively than resistance and aerobic exercise alone



# Benefits - Metabolic Syndrome

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**Type 2 diabetes, cardiovascular disease and high blood pressure**

- **Research shows that exercise elicits positive changes in blood sugar, cholesterol and triglyceride levels**
- **In other cancer populations, exercise has been shown to protect against cardiometabolic disease development as a result of treatment related SE**

# Benefits - Additional Positive Effects

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- Evidence suggests that exercise may help to preserve sexual activity and libido and lessen decline in sexual function
- Exercise improves mood, reduces psychological distress, anxiety and depression
- Research shows exercise can increase overall lifespan and reduce the risk of dying from prostate cancer

# **Benefits - Radiotherapy and Chemotherapy Efficacy**

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- **Radiation therapy causes cancer cell death by damaging the DNA**
- **Blood perfusion and oxygenation compromised in cancer cells**
- **It has been demonstrated in humans that an acute bout of exercise increases blood perfusion through cancerous prostate tumours**
- **Chronic exercise training may enhance radiation therapy**

# **Benefits - Managing Radiation and Chemo Side-effects**

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- Exercise has been demonstrated to improve quality of life, reduce the side-effects of hormone therapy, chemotherapy and radiation therapy, and is associated with increased survival**
- Helps reduce treatment related fatigue, maintain muscle mass and strength and helps maintain ability to continue with ADL**

# 1 - How much and how often?

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- **Perform some targeted exercise on most, if not every day of the week, regardless of cancer type, stage, or even when undergoing difficult treatments**
- **If the patient is relatively well, the aim should be to accumulate 75 minutes of vigorous to 150 minutes of moderate aerobic exercise each week and two or more resistance training sessions**

## 2 - How much and how often?

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- **Aerobic exercise is physical activity that increases the heart rate and the body's use of oxygen**
- **Resistance exercise sessions should involve 6–8 exercises that activate all major muscle groups of the body performed for between one and four sets of 6–12 repetitions maximum (RM)**

# 3 - How much and how often?

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- **For men on ADT – exercises targeting the preventing/slowing loss of bone mass. This requires impact exercise (stamping, heel drops, drop jumps, bench stepping, hopping) moderate-to-high impact intensity, 4 days per week, of around 50 impacts per session**

# 4 - How much and how often?

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- Each training session causes a surge of exercise medicine so dosage should be spread across the week and even throughout the day - good to perform bouts over five, six or even seven days
- For those patients with extensive fatigue or illness, multiple exercise sessions of 5-10 minutes spread across the day can be performed with the goal of accumulating the target exercise dosage each week



# Physical activity

Physical activity can be defined as **any movement of the body that requires energy expenditure**. This includes any motion you do through the day excluding sitting still or lying down. For example, walking indoor or outdoors, taking the stairs, mowing the lawn/gardening, doing an exercise session or cleaning your house can be considered physical activity

# **Physical activity - sports/classes/activities**

Find something you enjoy, can fit into your life and that you feel motivated to show up for and participate happily in!

# Physical activity - sports/classes/activities

Numerous sports clubs and  
Face-to-Face and Online Exercise Classes  
available to fit into your life and to suit all tastes

Ask me if you would like advice and information  
on local face-to-face exercise sessions or online  
zoom classes *tlhiggins@hotmail.co.uk*

LET'S DO A LITTLE EXERCISE!

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