Living with the fear of cancer recurrence & Physical activity for people with cancer
Living with a Fear of Cancer Recurrence (FCR)

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The Survivor’s Journey:
Emotions after treatment
Feeling overwhelmed
Saying goodbye
Lingering effects…

- Fatigue (tiredness)
- Poor concentration and forgetfulness
- Depressed mood
- Sleeping difficulties
- Pain
- Changes in sexuality
- General unwellness
Fear and uncertainty
Does your FCR make you:

• Worry or feel anxious most of the time?
• Concentrate poorly or have difficulty making decisions or be more forgetful?
• Feel hopeless about the future?
• Have trouble sleeping or eating well?
• Not participate in activities you usually enjoy?
• Frequently check your body for lumps or other signs of cancer?
Common triggers:

- Follow up visits
- Medical tests
- Anniversary events
- Birthdays
- Illness of family member
- Cancer recurrence in someone you know
- Symptoms like the ones you had before
- Death of someone who had cancer
The Avoidance Approach
(Not Recommended)
Exercise, Relax, Meditate
Talk it out
Destination: Happiness
Check in with your Values
Find Support
Importance of Exercise

“No single intervention has greater promise than exercise to reduce the risk of virtually all chronic disease simultaneously.”

Booth et al, 2009
Cancer deaths linked to modifiable risk factors

(Hess, 2008)
After cancer and treatment:
Decline in activity levels

Fatigue, nausea, pain ➔ inactivity ➔ fatigue
↓ exercise capacity
↓ cardiopulmonary system (breathlessness)
↓ muscular strength
↓ muscular endurance
↓ joint mobility
↓ bone density - osteoporosis
↓ balance
↓ pain threshold
Benefits of Exercise After Cancer Diagnosis

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Exercise During Chemotherapy

Positive effects on
• Nausea
• Fatigue
• Sleep disturbance
• Depression
• Anxiety
Exercise increases sensitivity to chemotherapy

- may improve completion rates
- fewer dose adjustments
- improves immune system
- accelerated rate of recovery & return to work

Courneya, Segal & Mackey, 2015; Waart, Stuiver, van Harten et al. 2015
During & after treatment
American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Survivors 2012

**Weight Management**
Achieve and maintain healthy weight

**Physical Activity**
- Avoid sedentary behaviour
- Min 150 min/week aerobic training
- 2 resistance training sessions / week

**Diet Quality**
- Limit processed meat
- Min 2.5 cups fruit and veg per day
- Whole grains
- Limit alcohol consumption
Obesity and cancer

Overweight and obesity INCREASE RISK FOR

ESOPHAGEAL CANCER

POST-MENOPAUSAL BREAST CANCER

GALLBLADDER CANCER

PANCREATIC CANCER

KIDNEY CANCER

OVARIAN CANCER

COLORECTAL CANCER

ENDOMETRIAL CANCER
Obesity and cancer outcomes

Linked to

- Cancer recurrence
- cancer related mortality
- Morbidity from cancer treatment
- Poor wound healing
- Post operative infections
- Lymphoedema
- Comorbid illness (cardiovascular disease, stroke, diabetes)
Possible Mechanisms??

1. Stiffer breast tissue in obese women may promote tumour growth
   - Stiffening of the meshwork that surrounds fat cells in the breast create the right conditions for tumour growth.
     Seo et al, 2015

2. Adipose tissue (fat) is a source of inflammation

3. Higher levels of fasting insulin (in non diabetic breast cancer patients) have been associated with a 2-3 fold increased risk of mortality.

**Exercise has anti inflammatory effects!!**
Weight Management for Cancer Survivors (WeMICS)

Evaluation of a weight management program in cancer survivors

Principal Investigators
• Ms Jane Turner
• Dr. Cindy Tan
• A/Prof Janette Vardy
• A/Professor Amanda Salis
• Dr. Haryana Dhillon
Weight Management for Cancer Survivors (WeMICS)

1. Clinic
- Baseline, 3 & 6 months
- Reviewed by EP, Dietitian, Survivorship Physician
- Body composition Ax
- Patient reported outcomes
- Behaviour change counseling
- Exercise & dietary advice

2. Supervised Exercise Sessions
- 2 x 60min sessions per week for 6 months
- Resistance & aerobic based exercise
- Home based exercise planning

3. Dietary Intervention
- 0-6 wks: weekly
- 7-12 wks: fortnightly
- 13-26 wks: monthly
- Self assessment, healthy eating strategies, overcoming barriers

Recruitment since September 2014: 12 participants.
Exercise and Cancer Recurrence

While prospective randomised controlled trials are required, observational data indicates a ~20-60% risk reduction in cancer-specific mortality for survivors who are more physically active.
CHALLENGE: Colon Health And Life Long Exercise - ChaNGE

A phase III study of the impact of a physical activity program on disease-free survival in patients with high risk stage II or stage III colon cancer

Population

Medically fit colon cancer patients (high risk stage II and stage III) completed adjuvant chemotherapy

Program (3 years)

- Supervised Exercise Sessions
- Behaviour change sessions

Exercise goal

Increase weekly exercise by a minimum of 2 ½ hours per week (moderate to vigorous intensity)
Exercise and Stage IV Cancer

*EXERCISE*

*CONTROL*

(Cheville, Kollasch & Vandenberg, 2013)
Exercise and Stage IV Cancer

Numerical rating score

Baseline | Week 8 | Baseline | Week 8

sleep *
pain *

EXERCISE
CONTROL

(Cheville, Kollasch & Vandenberg, 2013)
CaNE Study

Cancer Nutrition and Exercise rehabilitation program (CaNE) for patients with advanced cancer at risk of cancer cachexia syndrome – a phase II feasibility study

12-week supervised program
Advanced lung and gastrointestinal cancers
Resistance exercise
Protein Supplements and Fish Oils

Principal Investigators A/Prof Janette Vardy, Dr. Cindy Tan, A/Professor Amanda Salis, Dr. Prunella Blinman, Ms Jane Turner, Dr. Haryana Dhillon

Exercise may attenuate the effects of cancer cachexia and associated symptoms
Weight training counteracts muscle loss

ACSM Position Stand. Exercise for Older Adults. Med. Sci in Sports & Ex, 2009

Nat. Rev. Endocrinol. doi:10.1038/nrendo.2012.49

ACSM Position Stand. Exercise for Older Adults. Med. Sci in Sports & Ex, 2009

Tissue & organ cross talk between adipokines and myokines
Exercise and Tumour Biology

Exercise may slow cancer progression by directly impacting tumour biology
The future: oncologist consult

Patient chair

Oncologist’s chair
ENRICH

Join the FREE Exercise and Healthy Eating program For cancer survivors, carers, partners & family

- Exercise classes with an Exercise Physiologist
- Information on healthy eating with a Dietitian
- Small group sessions to improve fitness, muscle strength and stamina.
- 2 hours per week for 6 weeks

Courses run throughout the year
Don’t miss your place, enrol now

Phone: 1300 360 541
Email: enrich@nswcc.org.au
Healthy Living After Cancer

- Physical Activity
- Healthy Eating
- Weight loss/maintenance

Supporting you to improve your health and well-being after cancer treatment

A free program brought to you by Cancer Council Western Australia to help you make healthy lifestyle changes, get active and eat better
60 year old Female; Completed treatment for Colon Cancer

“I was told to get some exercise post cancer but it was recommended I walk or do something like aqua fit, both of which I did.

I would have liked to know if I could undertake a more intense programme and how long after treatment I could start.

I know now that exercise, not just weight loss, reduces the risk of colon cancer returning but I would it would have been good to know more about the benefits and how exactly exercise would help. I was probably told but at the time there is so much information to process.

I was told to be careful as there was a risk of hernia because the muscles take time to heal but is this an ongoing risk?”
Case Study

64 year old Christine, Remission following treatment for Non-Hodgkin’s Lymphoma

“I guess I wasn't really asking questions around exercise prior to treatment - my experience happened so suddenly - had back pain on Tuesday - the first sign anything was wrong and then the following Friday I was receiving chemotherapy!

As I recovered it would have been helpful to have been made aware of exercise - when to start, what type of exercise, how long to exercise for. I know that the specific answers depend on a lot of variable factors - but until ENRICH last year I had just tried to do some form of exercise when I felt I had the energy - usually walking.

For me - the safety of the survivorship program has been helpful - tailored to my needs and capacity.”
Case Study

59 year old Male, Locally Advanced Prostate Cancer
Arthritis in pelvis and lower back

- Exercise Regime:
  - Weight training 2 times per week for 4 years
  - Yoga 2-3 times per week for 11 months

“I have benefited greatly by supervised exercise programs since diagnosis in 2010. As we age we carry the wear and tear we have accumulated over our lives. Exercise might exacerbate both dormant and chronic injuries. This (risk) is likely to increase with unsupervised exercise and poor technique. Patients ought to attempt to add new exercises at 1 per day/week/month to assist them in identifying any cause of new pain”
Exercise Guidelines

**Weight Management**
Achieve and maintain healthy weight

**Physical Activity**
- Avoid sedentary behaviour
- Min 150 min/week aerobic training
- 2 resistance training sessions / week

**Diet Quality**
- Limit processed meat
- Min 2.5 cups fruit and veg per day
- Whole grains
- Limit alcohol consumption

- As vigorous as safely possible
- Individualised prescription
- Supervised
- Gradual progression