WHAT IS GYNAECOLOGICAL CANCER?
More than 6,000 women are diagnosed with gynaecological cancer (including cancer of the uterus [or endometrium], ovaries, cervix, vagina, vulva, fallopian tubes, and placenta) in Australia each year. Survival rates five years after diagnosis vary by cancer type (uterine, 83%; cervical, 72%; and ovarian, 44%); importantly, survival rates are progressively improving (1, 2). Treatment usually involves surgery and adjunct therapy, but sometimes chemotherapy and radiotherapy are used, alone or in combination, without surgery. Possible side effects include fatigue, hair loss, adverse changes in body composition (an increased percentage of fat and declines in muscle), weight gain, nausea, sleep concerns, joint and other types of pain, bone loss, ‘chemo brain’ (feeling vague), lymphoedema (swelling), peripheral neuropathy (pain and tingling in the extremities), and changes in bowel and bladder habits.

WHAT EXERCISE IS BEST FOR SURVIVORS OF GYNAECOLOGICAL CANCER?
Exercise plays an important role in the treatment of, and recovery from, gynaecological cancer through reducing the number and severity of treatment-related side effects and symptoms (such as pain, fatigue, sleep disturbances, and cognitive impairment), as well as improving or maintaining function during and after treatment. Only a limited number of studies have specifically investigated the value of exercise for survivors of gynaecological cancer. However, on the basis of findings from these studies (3), as well as findings from studies involving other cancer populations and clinical practice, the following guidelines are recommended:

• **Aerobic and supervised, resistance (weights) training are safe and beneficial.** Walking, weights training, and gym-based exercise have been well evaluated for safety or efficacy, whereas sports and other activities have not. Nonetheless, individuals should be encouraged to participate in their preferred exercise unless contraindicated (e.g. if there is an increased risk of fractures or infection).

• **Moderate-intensity exercise (enough to “puff” or the ability to “talk but not sing”) is recommended.** The level of exercise required to make someone puff is influenced by fitness and the presence of cancer-related symptoms. When feeling unwell or unfit, slow walking may be enough to make someone puff (that is, be moderate-intensity exercise). However, as fitness improves or treatment-related side effects are less, a faster walking pace (or different exercise type) may be required to ensure exercise is of moderate-intensity. For those not already regularly exercising, it is recommended that they start at low- to moderate-intensity and progress gradually. For regular exercisers, it is likely safe to exercise at high-intensity, but it is important to progress gradually up to this.

• **Current guidelines recommend maintaining or building up to 150+ minutes of exercise each week.** Exercise can be done in sessions as short as 10 minutes and should include either or both aerobic- and resistance-based exercises. It is best to spread exercise sessions out across the week (e.g. 30 minutes on 5 days of the week). Depending on intensity, it may be necessary to avoid doing resistance-based exercises on consecutive days. Additional benefits may be gained by exercising for up to 300 minutes each week, but progression towards this amount needs to be gradual.

• **The supervision required during exercise depends on exercise history, the timing with respect to diagnosis, and the presence and intensity of treatment-related side effects.** Whilst many can safely exercise during or following treatment for gynaecological cancer without supervision, support from a qualified health professional (e.g. Physiotherapist/Accredited Exercise Physiologist) may help in successfully commencing and maintaining an exercise program. The right exercise program will likely differ with type of cancer, the stage of disease, and the time since diagnosis. The stage of treatment (completed, current or planned) and the woman’s longer-term outlook are important considerations. For example, programs for women with ovarian cancer who have had extensive open-abdominal surgery and are about to start repeated courses of chemotherapy should be supervised and tailored to fluctuating treatment-related side effects. Alternatively, women treated for uterine cancer have good long-term prospects, but may be obese. The exercise programs for these women might aim to reduce body fat and promote long-term exercise habits to reduce the risk of future disease.
WHAT ARE SOME COMMON BARRIERS TO EXERCISE?

Here are some suggestions to help overcome common barriers to exercise that are reported by women during or after their treatments.

Fear of worsening symptoms (e.g. fatigue, nausea, pain) - Diarising exercise and side effects can show that exercise, at the very least, does not worsen existing side effects. During cancer treatment, women often become less active, which leads to a harmful cycle of reduced activity, reduced function, and worsening fatigue. While exercise may not reduce fatigue, it should not worsen fatigue. An appropriate exercise program prevents or reduces muscle loss that will likely occur during treatment in the absence of exercise, and this muscle loss will increase fatigue.

Lymphoedema (fluid build-up that causes swelling in various parts of the body) - This common side effect may even develop before treatment and can persist for years after treatment. Swelling can occur in the legs, lower abdomen, genitals, and buttocks. Associated symptoms include pain, heaviness, discomfort, weakness, ‘pins and needles’, and difficulty moving. Exercise encourages fluid to drain back through the body’s circulation, but many women fear that exercise will cause or worsen lymphoedema. However, studies of women at risk of, or who have developed lymphoedema following breast cancer, show that progressive aerobic or resistance exercise is safe and beneficial (4). In addition, avoidance of standing or sitting with legs down for long periods helps to prevent fluid gathering around feet and calves, while regular movement helps the muscles pump the fluid away. Aqua aerobics and swimming are especially helpful when lymphoedema is present.

Trouble exercising during treatment periods with intense side effects - Some women find they cannot maintain their usual exercise routines in the days immediately after a cycle of chemotherapy, or when symptoms are particularly intense. Instead of avoiding exercise altogether at these times, having a separate exercise program for ‘bad days’ is useful. For example, instead of a 30-minute walk on the three days after chemotherapy, do 4 5-minute walks. Some exercise on ‘bad days’ helps maintain the habit of exercising while preventing or reduces functional declines associated with treatment periods without exercise.

Being overweight or obese - Some women with uterine cancer are overweight or obese. Size can affect the ability to exercise (e.g. walking on a treadmill). Also, women who are overweight may lack confidence in their ability to exercise, or may be embarrassed, for example, to wear swimwear. Exercising in a women-only fitness centre or at home, using low-impact exercises on even surfaces (e.g. a DVD aerobics class in the lounge room, or attending a fitness centre at quiet times) are ways to help overcome this concern. It is also important to remember that many women are self-conscious about their weight.

Bowel and bladder problems - After surgery and treatment for gynaecological cancer, changes in bowel habits (diarrhoea or constipation) are common. Exercise can increase the frequency and looseness of stools, so some women avoid exercising because they fear suddenly needing a bathroom. To reduce this anxiety, exercise at home, or, if away from home, use a gymnasium or a park with a toilet block. Exercise may also relieve constipation. If the woman suffers from incontinence (poor bladder control), include exercises to strengthen the pelvic floor in the program, and use low-impact aerobic activities.

Feeling discouraged by not seeing improvements - Women need to have progress and success appropriately defined. Without a structured exercise program, women may experience a decline in physical function during periods of active treatment. Actual improvements in function may occur for some women who exercise during treatment. At the very least, exercise can minimise or prevent typical treatment-related declines. Having realistic expectations regarding changes in function may assist women to stay active during and beyond the treatment period.

General barriers to exercise - Survivors of gynaecological cancer still need to overcome all the usual exercise barriers experienced by people without gynaecological cancer (e.g. affordability, time constraints, lack of interest, or motivation). Depending on individual circumstances, these barriers may either be increased or decreased as a result of the gynaecological cancer experience.

RELATED INFORMATION AND REFERENCES

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