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**Annual subscription - \$5** from  
1<sup>st</sup> January per individual,  
couple, or family.

**MEETING VENUE:**

Uniting Church Meeting Room  
Seddon St, Ivanhoe

**DAY CALENDAR 2014**

Meetings: **10:00am -12:30pm**

Wed 14<sup>th</sup> May '14  
Wed 11<sup>th</sup> June '14  
Wed 9<sup>th</sup> July '14  
Wed 13<sup>th</sup> August '14  
Wed 10<sup>th</sup> September '14  
Wed 8<sup>th</sup> October '14  
Wed 12<sup>th</sup> November '14  
Wed 10<sup>th</sup> December '14  
Wed 11<sup>th</sup> February '15  
Wed 11<sup>th</sup> March '15  
Wed 8<sup>th</sup> April '14

**NO MORE  
THURSDAY  
EVENING MEETINGS**

**Due to the very low  
number of attendees  
over the past year of  
the Thursday Evening  
meetings, it has been  
decided not to have  
any more evening  
meetings.**

*Prostate Heidelberg provides information, education and support for those affected by prostate cancer. At the meetings, we*

1. *Show respect to members and speakers;*
2. *Allow people to speak and we listen;*
3. *Respect confidentiality;*
4. *Allow new ideas to be shared.*

**DISCLAIMER**

*Information contained in this newsletter or discussed at meetings, should not take the place of proper medical advice from a qualified health professional. The services of a qualified health practitioner should be sought before applying the information to your particular circumstances.*

The Prostate Heidelberg Cancer Support Group had eleven attendees at the DAY meeting on 9<sup>th</sup> April 2014. The EVENING meeting on 24<sup>th</sup> April had five attendees (all steering committee members).

**NEXT MEETINGS**

Prostate Heidelberg's MEETING VENUE is the Ivanhoe Uniting Church Meeting Room, Seddon Street Ivanhoe (Melways 31 F8) - behind the Commonwealth Bank in Upper Heidelberg Rd. Car parking is available off Waterdale Rd behind the Ivanhoe Hotel. **There is no charge for attending.**

The **NEXT MEETING is 10:00 am to 12.30 pm, Wednesday 14<sup>th</sup> May 2014.**

- Partners or carers are welcome to all meetings
- Meetings are open to anyone interested in getting support or information on a cancer journey.

**GUEST PRESENTATION**

**Wednesday 14<sup>th</sup> May** -Ms EVA YUEN (PhD Candidate at Deakin University), on her research project **"UNDERSTANDING HEALTH LITERACY FOR CAREGIVERS OF PEOPLE WITH CANCER."** Health Literacy is the knowledge and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health of themselves and people for whom they care.



## **HORMONE (ANDROGEN DEPRIVATION) THERAPY**

By American Cancer Society

<http://www.cancer.org/cancer/prostatecancer/detailedguide/prostate-cancer-treating-hormone-therapy>

Last Medical Review: 26-Aug-2013

Last Revised: 12-Mar-2014

*This is an article from a USA web site. Not all of these treatments are available on the Pharmaceutical Benefits Scheme.*

Hormone therapy is also called androgen deprivation therapy (ADT) or androgen suppression therapy. The goal is to reduce levels of male hormones, called androgens, in the body, or to prevent them from reaching prostate cancer cells.

The main androgens are TESTOSTERONE and DIHYDROTESTOSTERONE (DHT). Most of the body's androgens come from the testicles, but the adrenal glands also make a small amount. Androgens stimulate prostate cancer cells to grow. Lowering androgen levels or stopping them from getting into prostate cancer cells often makes prostate cancers shrink or grow more slowly for a time. However, hormone therapy alone does not cure prostate cancer and eventually, it stops helping.

### USES OF HORMONE THERAPY

1. If you are not able to have surgery or radiation or can't be cured by these treatments because the cancer has already spread beyond the prostate gland
2. If your cancer remains or comes back after treatment with surgery or radiation therapy
3. Along with radiation therapy as initial treatment if you are at higher risk of the cancer coming back after treatment (based on a high Gleason

score, high PSA level, and/or growth of the cancer outside the prostate)

4. Before radiation to try to shrink the cancer to make treatment more effective

Several types of hormone therapy can be used to treat prostate cancer. Some lower the levels of testosterone or other androgens (male hormones). Others block the action of those hormones.

### TREATMENTS TO LOWER ANDROGEN LEVELS

#### **Orchiectomy (surgical castration)**

Even though this is a type of surgery, its main effect is as a form of hormone therapy. In this operation, the surgeon removes the testicles, where most of the androgens (testosterone and DHT) are made. With this source removed, most prostate cancers stop growing or shrink for a time.

This is done as a simple outpatient procedure. It is probably the least expensive and simplest way to reduce androgen levels in the body. But unlike some of the other methods of lowering androgen levels, it is permanent, and many men have trouble accepting the removal of their testicles.

Some men having the procedure are concerned about how it will look afterward. If wanted, artificial silicone sacs can be inserted into the scrotum. These look much like testicles.

#### **Luteinizing hormone-releasing hormone (LHRH) agonists**

These drugs lower the amount of testosterone made by the testicles. Treatment with these drugs is sometimes called chemical castration because they lower androgen levels just as well as orchiectomy.



Even though LHRH agonists cost more than orchiectomy and require more frequent doctor visits, most men choose this method. These drugs allow the testicles to remain in place, but the testicles will shrink over time, and they may even become too small to feel.

LHRH agonists are injected or placed as small implants under the skin. Depending on the drug used, they are given anywhere from once a month up to once a year. The LHRH agonists available in the United States include leuprolide (**Lupron®**, **Eligard®**), goserelin (**Zoladex®**), triptorelin (**Trelstar®**), and histrelin (**Vantas®**).

When LHRH agonists are first given, testosterone levels go up briefly before falling to very low levels. This effect is called FLARE and results from the complex way in which LHRH analogs work. Men whose cancer has spread to the bones may have bone pain. If the cancer has spread to the spine, even a short-term increase in tumour growth as a result of the flare could compress the spinal cord and cause pain or paralysis. Flare can be avoided by giving drugs called anti-androgens for a few weeks when starting treatment with LHRH agonists.

### **Luteinizing hormone-releasing hormone (LHRH) antagonists**

LHRH antagonists work like LHRH agonists, but they reduce testosterone levels more quickly and do not cause tumour flare like the LHRH agonists do.

Degarelix (**Firmagon®**) is an LHRH antagonist used to treat advanced prostate cancer. It is given as a monthly injection under the skin and quickly reduces testosterone levels. The most common side effects are problems at the injection site (pain, redness, and swelling)

and increased levels of liver enzymes on lab tests. Other side effects are discussed in detail below.

### **Abiraterone (Zytiga®)**

Drugs such as LHRH agonists can stop the testicles from making androgens, but other cells in the body, including prostate cancer cells themselves, can still make small amounts, which may fuel cancer growth. **Abiraterone** blocks an enzyme called CYP17, which helps stop these cells from making certain hormones, including androgens.

**Abiraterone** can be used in men with advanced castrate-resistant prostate cancer (cancer that is still growing despite low testosterone levels from LHRH agonists, LHRH antagonists, or orchiectomy). **Abiraterone** has been shown to shrink or slow the growth of some of these tumours and help some of these men live longer.

This drug is a pill and the most common dose is 4 pills every day. Since this drug doesn't stop the testicles from making testosterone, men who haven't had an orchiectomy need to continue with treatment to stop the testicles from making testosterone (LHRH agonist or antagonist therapy). Because **abiraterone** lowers the level of other hormones in the body, prednisone (a cortisone-like drug) needs to be taken during treatment as well to avoid the side effects caused by lower levels of these other hormones.

## **DRUGS THAT STOP ANDROGENS FROM WORKING**

### **Anti-androgens**

Androgens have to bind to a protein in the cell called an androgen receptor in order to work. Anti-androgens stop androgens from working by binding to the receptors so the androgens can't.



Drugs of this type, such as flutamide (**Eulexin®**), bicalutamide (**Casodex®**), and nilutamide (**Nilandron®**), are taken daily as pills.

Anti-androgens are not often used by themselves in the USA. An anti-androgen may be added to treatment if orchiectomy, an LHRH agonists, or LHRH antagonist is no longer working by itself. An anti-androgen is sometimes given for a few weeks when an LHRH agonist is first started to prevent a tumour flare.

Anti-androgen treatment may be combined with orchiectomy or LHRH agonists as first-line hormone therapy. This is called **COMBINED ANDROGEN BLOCKADE (CAB)**. There is still some debate as to whether CAB is more effective in this setting than using orchiectomy or an LHRH agonist alone. If there is a benefit, it appears to be small.

Some doctors are testing the use of anti-androgens instead of orchiectomy or LHRH agonists. Several recent studies have compared the effectiveness of anti-androgens alone with that of LHRH agonists. Most found no difference in survival rates, but a few found anti-androgens to be slightly less effective.

In some men, if hormone therapy including an anti-androgen stops working, the cancer will stop growing for a short time from simply stopping the anti-androgen. Doctors call this the anti-androgen withdrawal effect, although they are not sure why it happens.

### **Enzalutamide (Xtandi®)**

This drug is a newer type of anti-androgen. When androgens bind to the androgen receptor, the receptor sends a signal for the cells to grow and divide. **Enzalutamide** (also known as MDV3100)

blocks this signal from the androgen receptor to the cell.

In men with castrate-resistant prostate cancer who have already been treated with the chemotherapy drug docetaxel (**Taxotere®**), **enzalutamide** has been shown to lower PSA levels, shrink or slow the growth of tumours, and help them live longer. This drug is also being studied to see if it can help men earlier in treatment.

**Enzalutamide** is a pill, with the most common dose being 4 pills each day. In studies of this drug, men stayed on LHRH agonist treatment, so it isn't clear how helpful this drug would be in men with non-castrate levels of testosterone.

### **OTHER ANDROGEN-SUPPRESSING DRUGS**

**Estrogens** (female hormones) were once the main alternative to orchiectomy for men with advanced prostate cancer. Because of their possible side effects (including blood clots and breast enlargement), estrogens have been largely replaced by LHRH agonists and anti-androgens. Still, **estrogens** may be tried if androgen deprivation is no longer working.

**Ketoconazole (Nizoral®)**, first used for treating fungal infections, blocks production of certain hormones, including androgens, similarly to abiraterone. It is most often used to treat men just diagnosed with advanced prostate cancer who have a lot of cancer in the body, as it offers a quick way to lower testosterone levels. It can also be tried if other forms of hormone therapy are no longer effective.

**Ketoconazole** can block the production of cortisol, an important steroid hormone in the body. People treated with



ketoconazole often need to take a corticosteroid (like hydrocortisone) to prevent the side effects caused by low cortisol levels.

## **EXERCISE IS MEDICINE for PROSTATE CANCER**

*Presentation by Dale ISCHIA*

(0407 118 818; [www.mepg.com.au](http://www.mepg.com.au))

to Prostate Heidelberg 28th March 2014

[http://exerciseismedicine.org.au/wp-content/uploads/2011/03/Prostate-cancer\\_full.pdf](http://exerciseismedicine.org.au/wp-content/uploads/2011/03/Prostate-cancer_full.pdf)

*It is recommended that you do not start an exercise regime without first consulting your GP or urologist/oncologist.*

Prostate cancer treatments include surgical removal of the cancer, radiation therapy, hormone therapy (the pharmaceutical suppression of either testosterone production or blockage of binding sites on the cells) and/or active surveillance. Treatment side effects, include urinary incontinence, sexual dysfunction, fatigue, muscle and bone loss, weight gain, cognitive impairment, increased risk of cardiovascular disease, type 2 diabetes, anxiety and/or depression.

Exercise has a well-established role as medicine to reduce all these side effects.

### **Exercise and prevention of prostate cancer**

Established scientific evidence shows that regular and vigorous physical exercise prevents some cancers, and can also reduce the incidence of cancer by 30-70%. Evidence of the protective effect on prostate cancer is increasing, although the effect is greatest in more advanced disease and in older men. One study reported reduced prostate cancer incidence by 70% for advanced forms and

in older men if performing more than 3 hours of vigorous exercise per week. The protective mechanisms are not well understood, but maintaining normal body weight, controlling stress and anxiety, and maintaining physical fitness all optimise the function of the immune system, which reduces the risk for all cancers.

### **Exercise for management of prostate cancer**

If you have been diagnosed with prostate cancer, exercise is an important adjunct therapy to reduce your symptoms, lessen the side effects of radiation and drug therapies, improve your psychological wellness and increase your survival rate. Exercise is particularly important for preventing and managing other, often more life-threatening, chronic diseases, such as cardiovascular disease and type 2 diabetes. These conditions are increasingly recognised as side effects of cancer therapy, particularly hormone therapy. There is now irrefutable evidence from large prospective studies that regular exercise after cancer diagnosis will actually increase cancer survival rates by 50-60%, with the strongest effect for breast, colorectal and prostate cancers. A recent study has reported a 49% reduction in deaths from all causes in patients with prostate cancer who did more than three hours of weekly vigorous activity and 61% lower risk of prostate cancer death. Therefore, exercise programs must be prescribed to address specific issues facing the patient. An appropriately prescribed exercise program has been demonstrated to increase muscle mass and neuromuscular strength, enhance functional performance and reduce risk factors for metabolic syndrome, cardiovascular disease and type 2 diabetes. These effects, along with improved immune capacity resulting from exercise are the most likely mechanisms for increased survival rates in patients



who remain, or become, sufficiently active.

### **What type of exercise is recommended?**

If you have been diagnosed with prostate cancer, you should aim to meet or exceed the following:

1. Do continuous or intermittent **AEROBIC** exercise for 20 to 60 minutes per session, three to five times per week at 60-90% of your maximal heart rate (the maximal heart rate is estimated as 220 minus your age in years). Rating of perceived exertion (RPE) is also a useful method to prescribe the desired intensity of the exercise. RPE for older people should be between 13 and 15 on a 20-point scale, provided you have no other health issues that require a lower intensity. Your total weekly exercise should be 120-150 minutes, depending on the intensity of your aerobic exercise.

2. **RESISTANCE** (weight) training at an intensity of 6-12 repetitions maximum (RM) performed over 3 sets of 6-8 exercises is recommended for each session with the goal of 2 or more sessions per week. It is important to exercise all the major muscle groups each week and select functional movements such as squat, upright row, shoulder press and other exercises that are similar to tasks of daily living. RM intensity refers to the maximum weight that can be lifted for a given target set. For example, 6RM is the weight that can be lifted only 6 times through the full range of movement and while maintaining correct technique.

3. **FLEXIBILITY** exercises for major muscle groups involving 2 to 4 sets of each exercise two to three times per week should also be completed. Low bone mineral density and osteoporosis are common in men with prostate cancer, due to their age and particularly if they are

undergoing androgen suppression therapy. If your bone density is compromised then it is recommended that impact loading exercise be completed to slow or even reverse your bone loss. However, if you have severe osteoporosis or if your cancer has spread to the bones, a modified program is best for reducing your risk of fractures. An exercise program should not exclude exercises which load the skeleton as this strategy will exacerbate bone loss. Rather, prudent exercise and load selection employed in more controlled environments under the supervision of an Accredited Exercise Physiologist is advised.

### **Exercise physiologists**

Exercise physiologists can also help you to address any significant neuromuscular weakness to maintain your muscle function and reduce your risk of falls. Balance training that includes recovery from being off balance and functional movement training may be beneficial. If you have muscle wasting, increase your resistance training to build muscle mass – this may be more effective if combined with nutritional strategies to optimise muscle growth. If you have a high level of body fat, particularly if you have other signs of metabolic syndrome, exercise and nutritional strategies will help you to attain a more healthy body composition. As per the guidelines of the American College of Sports Medicine, a higher total volume of weekly aerobic exercise combined with reduced energy intake is recommended in this case.

The next page has eight exercises suggested by Ms Dale ISCHIA, Melbourne Exercise Physiology Group (0407 118 818; [www.mepg.com.au](http://www.mepg.com.au)).

<b>Client name:</b>	<b>Date:</b>
<b>Considerations:</b>	Work with what is comfortable. Don't over do it.
<b>Program goals:</b>	Improve lower body strength, function & balance

Exercise	Image	Prescription
<b>Heel raise, toe raise</b> Standing. Hold onto something only if you need to. Rock up on toes, back on heels keeping knees straight.		10 X
<b>Heel Drops</b> Coming high up on your toes, then drop heels down quickly to create a gentle jarring effect.		10 X
<b>Alternate side step &amp; squat</b> Step out to the side & squat. Change sides.		10 each side
<b>Hip lift &amp; swing</b> Lift hip up and swing leg forwards and backwards, keeping legs straight.		10 each side
<b>Warrior</b> Back foot at 45°, front foot straight ahead. Lunge into front foot, keeping toes in line with knee but behind knee.		Hold 20 seconds
<b>Side to side lunges</b> Start with legs out wide and lunge side to side.		10 each side
<b>Chair or wall plank-push up</b> Keeping back perfectly straight. Stomach in tight. Beginner version – against wall. Intermediate – on chair		5 – 10 reps
<b>Three point balance challenge</b> Squat on one leg. Tap other leg forwards, sideways and backwards		5 each side.

## PLEASE RETURN BOOKS or DVDs BORROWED from the LIBRARY

Prostate Heidelberg currently has a significant number of books and DVDs that have not been returned. The usual borrowing period is one month. As there are other people who would like to use these library resources on their cancer journey, please return them at the next available meeting. If you borrowed a book and since lost it, please send a note to that effect to [prostateheidelberg@gmail.com](mailto:prostateheidelberg@gmail.com); we may be able to replace it.

## FINANCIALS APRIL 2014

As of 20<sup>th</sup> April 2014, Prostate Heidelberg had \$4,821 (24<sup>th</sup> March: \$4,928) in its NAB bank account, and \$100 as a petty cash float.

## MEETINGS MAY 2014

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The **NEXT MEETING:** 10:00 am to 12.30 pm, **Wednesday 14<sup>th</sup> May** 2014.

## USEFUL PROSTATE CANCER WEBSITES

ProstMate, individualised Prostate Cancer support [www.ProstMate.org.au](http://www.ProstMate.org.au);  
Prostate Cancer Foundation of Australia [www.pcfa.org.au](http://www.pcfa.org.au);  
Cancer Council Victoria [www.cancervic.org.au](http://www.cancervic.org.au); HELPLINE - 13 11 20  
Beyond Blue: [www.BeyondBlue.org.au](http://www.BeyondBlue.org.au); HELPLINE: 1300 22 4636  
Continence Foundation of Australia [www.continence.org.au](http://www.continence.org.au); HELPLINE: 1800 33 00 66  
Royal Australian and New Zealand College of Radiologists [www.targetingcancer.com.au](http://www.targetingcancer.com.au);  
National Cancer Institute: [www.cancer.gov](http://www.cancer.gov);  
Cancer Council Australia: [www.cancer.gov.au](http://www.cancer.gov.au);  
Lions' Australian Prostate Cancer Collaboration [www.prostatehealth.org.au](http://www.prostatehealth.org.au);  
USA Prostate Cancer Foundation [www.pcf.org](http://www.pcf.org)  
Life Extension [www.lef.org](http://www.lef.org);  
Us Too International Prostate Cancer Education and Support Network [www.UsToo.org](http://www.UsToo.org);  
American Institute for Diseases of the Prostate [www.prostateteam.com](http://www.prostateteam.com) (Dr Charles "Snuffy" Myers);  
Australian Advanced Prostate Cancer Support Groups website [www.jimjimjimjim.com](http://www.jimjimjimjim.com);  
Commonwealth site for palliative care <http://www.health.gov.au/palliativecare>;  
Banksia Palliative Care <http://www.BanksiaPalliative.com.au>

## NEXT GUEST PRESENTATION

Wednesday 14<sup>th</sup> May -Ms EVA YUEN (PhD Candidate at Deakin University), on her research project "UNDERSTANDING HEALTH LITERACY FOR CAREGIVERS OF PEOPLE WITH CANCER." Health Literacy is the knowledge and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health of themselves and people for whom they care.

## NO MORE THURSDAY EVENING MEETINGS

Due to the very low number of attendees over the past year of the Thursday Evening meetings, it has been decided not to have any more evening meetings.

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