

## NEXT EXERCISE PROGRAMME FOR MEN WITH PROSTATE CANCER UNDERGOING ANTIHORMONAL THERAPY

### **EXERCISE LOG**



# INTRODUCTION TO EXERCISES

The NEXT programme may be useful when you want to get started with exercise. In this brochure you will find an introduction to four machines you can use for warming up and for fitness training (cross trainer, treadmill, rowing machine and exercise bike). We recommend that you spend at least 30 minutes on warming up and fitness training every time you exercise, prior to any strength training. We also show you seven strength-training machines and go through how to use them. Lastly, there is a suggested exercise programme that you can follow using the recommended exercises. It is important that your strength training is progressive, which means that you increase the weight over time. There is also a modified programme. The modified programme is for those who need to adapt the exercises, for example due to osteoporosis or multiple/larger bone metastases from the prostate cancer. You can decide with your doctor or nurse whether you should follow the modified programme.

### Warming up and fitness training:

The programme consists of four exercises to improve fitness that can also be used as a warm-up. For fitness training it is a good idea to exercise in intervals, i.e. varying the pace. You could, for example, cycle fast for 30 seconds, followed by one minute at a gentle pace. You should preferably spend at least 30 min-

utes on warming up and fitness training every time you exercise. You should have periods in your training when you get out of breath and are unable to speak in whole sentences. If you suffer from cardiovascular disease, you should not push yourself as hard – in other words, the pace should be lower, and the intensity should be less. You should still get out of breath, but you should be able to hold a conversation as you go. Perhaps switch between the four machines. The fitness machines can vary from gym to gym, but make a note, for example, of how long you spend on the machine, and the distance you have achieved in metres or kilometres at the end of your personal programme.

### Strength training (standard programme):

There are countless machines, but the seven we have selected here will exercise all of the major muscle groups. The exercise programme is structured so that you begin with two sets of 15 repetitions. Rest for 60–90 seconds between each set. Take things easier the first few times you exercise, so that you do not suffer any strain injuries. You should feel like you could manage a few more than 15 repetitions. When you get to your third training session, you should add a bit more resistance – start with an increase of 2–5 kg. You should now do two sets of 12 repeti-



tions. The last couple of repetitions may well be a bit hard. Once you reach week four, you should increase the exercise by adding an extra set. This means you should do three sets of 12 repetitions.

When you go from two to three sets, you can keep the resistance the same until you no longer find it hard. As your energy level increases, you can again slowly increase the resistance. When you get to week 7 of your programme, you should drop down to three sets of 10 repetitions, and at this point you may again benefit from slowly increasing the weight. Keep to three sets of 10 repetitions. Continue with these exercises after you have finished this programme, but you can slowly increase the weight if it gets too easy. You may well find your muscles are tender in the days following exercise. But exercise should not trigger pain or worsen existing pain. It is best to use all seven machines every time you exercise. If you need to take a break from training for a period of time, you could perhaps start again with two sets of 15 repetitions at a reduced resistance.

### Modified programme:

The modified programme can be used if you have been diagnosed with osteoporosis, or if your doctor recommends restricted strength training, for example due to larger or multiple bone metastases from the prostate cancer. The modification involves decreasing the resistance and doing an increased number of repetitions compared to the standard programme. You use the same seven strengthtraining machines as in the standard programme. This allows you to exercise all of the major muscle groups. The exercise programme is structured so that you train by doing two sets of 20 repetitions. Rest for 60-90 seconds between each set. It must not hurt to exercise. This is only a four-week programme, and you keep the same resistance during all training sessions. If you feel it gets too easy after a while, you can slowly increase the resistance, but it must always be manageable for you to do 20 repetitions. It is best to use all seven machines every time you exercise.

### **CROSS TRAINER**



### How to do the exercise

The cross trainer is a good way to get your pulse up. Be careful getting on and off, and use the fixed handles for this – not the moveable ones. Walk forward and use your arms to pull the moveable handles. Increase the pace after a couple minutes of warm-up. The cross trainer is gentle on knees and hips, as you are not bearing your own weight. It is also good for your back.

### WARM-UP: 5-10 MINUTES

- Then 30 seconds at a fast pace
- One minute at a gentle pace
- Continue this interval pattern until the end of fitness training

### **TREADMILL**



### How to do the exercise

The treadmill is a good way to get your pulse up. Always start by attaching the safety cord to your clothing. If you are not accustomed to using a treadmill, hold on firmly to the sides, and remember that the treadmill has an emergency stop. Walk forward at a gentle pace. Once you are comfortable on the treadmill, you can increase the speed and let go of the sides. Remember that it is good to get out of breath. On most treadmills it is possible to increase the incline. But if your prostate cancer has spread to the bones, it is best to avoid too steep an incline.

#### WARM-UP: 5-10 MINUTES

- Then 30 seconds at a fast pace
- One minute at a gentle pace
- Continue this interval pattern until the end of fitness training

### **ROWING MACHINE**



### How to do the exercise

The rowing machine is ideal for fitness training. Always set the resistance between 1 and 4. Make sure you can reach the handle before you seat yourself. Be careful getting on and off. Position your feet and fasten them firmly in place. Take hold of the handle. Move the seat back with your legs and pull during the last bit with your arms. Repeat this and find a good rhythm. Make sure the seat does not roll forward when you get off.

#### WARM-UP: 5-10 MINUTES

- Then 30 seconds at a fast pace
- One minute at a gentle pace
- Continue this interval pattern until the end of fitness training

### **EXERCISE BIKE**



### How to do the exercise

Cycling is an important part of circuit training. Set the seat height to your hip level. Some exercise bikes have foot straps, which may be helpful to use. Do a steady and gentle warm-up for a couple of minutes, and then increase the pace and resistance. It is a good idea to switch between steady and faster intervals to improve your fitness. Remember to unstrap your feet, if relevant, before getting off the bike.

#### WARM-UP: 5-10 MINUTES

- Then 30 seconds at a fast pace
- One minute at a gentle pace
- Continue this interval pattern until the end of fitness training

### **LOW ROW**



### How to do the exercise

This machine exercises the upper part of the back. Start by adjusting the seat height. Then select the resistance you want. Finally, adjust the chest pad. You should just be able to reach the handles when you are sitting down. Pull the handles backwards and then slowly stretch the arms out again. Repeat at a controlled pace. Keep your back straight throughout the exercise.

### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### LEG EXTENSION



### How to do the exercise

This machine exercises the thigh muscles. First adjust the seat so the pad fits into the hollow of the knees when you are seated with your legs bent. Now select the resistance you want. Adjust the handle so you are bending your legs as much as possible without it being uncomfortable. If you have knee problems, you should use a slightly gentler angle. Adjust the ankle pad so that it rests right over the ankle. Now stretch your legs out quickly and bend them back slowly. Repeat at a controlled pace.

### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **CHEST**



### How to do the exercise

This machine exercises the chest muscles. Adjust the seat so the handles are more or less level with your armpits. The handles can be adjusted to three different positions. If you have problems with your shoulders, the handles should be angled forwards. Push the handles forward and in over your chest, and then back again. Push forward at a good pace and then back steadily and gently. Make sure you allow your head to rest on the support so that you do not strain your neck.

### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **ABDOMEN**



### How to do the exercise

This machine exercises the abdominal muscles. The only thing that needs adjusting is the resistance. Pull the straps in over your shoulders, so the back pad is as close to you as possible. Now bend back and forth at a gentle pace. For some people it is more comfortable to have the straps crossed over the chest. Both variants of the exercise are equally good.

### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **KNEE FLEX**



### How to do the exercise

This machine exercises the hamstrings. It is easiest if you seat yourself in the machine when the handle is flipped down. First adjust the ankle pad so it is right over the Achilles tendon. Then adjust the resistance. The seat should be moved forward or backward so that the upper leg pad is approximately 10 centimetres below the kneecap. To get the most out of this exercise, the handle should be angled so that the legs are as straight as possible. Bend the legs at a good pace and stretch them slowly out again. Repeat at a controlled pace. If the pad on the shin is too close to the kneecap, it will not be possible to bend the leg properly and the seat should be adjusted.

#### START: TWO SETS OF 15 REPETITIONS

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **BACK**



### How to do the exercise

This machine exercises the deep back muscles. Adjust the neck pad so that it rests right over the shoulder blades. Sit up against the neck pad, adjust the resistance and then use the handle to bend forward. You should bend as far forward as you can before you let go of the handle. Cross your arms over your chest and lean back as far as you can. Repeat at a controlled pace.

#### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **LEG PRESS**



### How to do the exercise

This exercises the buttocks and thighs. Apart from the resistance, the seat is the only thing that needs adjusting. Position your feet and run the seat forward so your knees are bent at a 90 degree angle. Stretch your legs without locking your knees, and then bend them again. Repeat at a controlled pace. If you come up on your heel at the end of the movement, you will also be exercising your calf muscles.

### **START: TWO SETS OF 15 REPETITIONS**

- Gradually add more resistance
- Increase to three sets of 12 repetitions
- Add more resistance and end up with three sets of 10 repetitions

### **EXERCISE CHART**

### **STANDARD PROGRAMME**

	Week	Week 1		We	ek 2	Week 3		Week 4	
	Date	d.	d.						
EXERCISE BIKE	Seat:	Time/km	Time/km						
CROSS TRAINER	Time: Distance:								
ROWING MACHINE	Time: Distance:								
TREADMILE.	Time: Distance:								
TOWN OW	Seat: Chest pad:	Number 15-15 Kg:	Number 15-15 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:

	Week	Week 1		Wee	ek 2	Wed	ek 3	Week 4	
	Date	d.	d.						
LEG EXTENSION	Seat: Ankle pad:	Number 15-15	Number 15-15	Number 12-12	Number 12-12	Number 12-12	Number 12-12	Number 12-12-12	Number 12-12-12
ENSION	Handle:	Kg:	Kg:						
CHEST	Seat: Handle:	Number 15-15 Kg:	Number 15-15 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:
IL FI									
ABDOMEN		Number 15-15 Kg:	Number 15-15 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:
KNEEFLEX	Seat: Ankle pad:	Number 15-15	Number 15-15	Number 12-12	Number 12-12	Number 12-12	Number 12-12	Number 12-12-12	Number 12-12-12
ĘX	Handle:	Kg:	Kg:						
	Neck pad:	Number 15-15	Number 15-15	Number 12-12	Number 12-12	Number 12-12	Number 12-12	Number 12-12-12	Number 12-12-12
BACK	Handle:	Kg:	Kg:						
LEG PRESS	Seat:	Number 15-15 Kg:	Number 15-15 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:
-									

### **STANDARD PROGRAMME**

	Week	Week 5		We	ek 6	Week 7		Week 8	
	Date	d.							
EXERCISE BIRE	Seat:	Time/km							
CROSS RAINER	Time: Distance:								
ROWING MACHINE	Time: Distance:								
IREADMILE.	Time: Distance:								
TOWN OW	Seat: Chest pad:	Number 12-12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:	Number 12-12-12 Kg:	Number 10-10-10 Kg:	Number 10-10-10 Kg:	Number 10-10-10 Kg:

	Week	Week 5		Wee	ek 6	We	ek 7	Week 8	
	Date	d.							
LEG EXTENSION	Seat: Ankle pad:	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
ENSION	Handle:	Kg:							
	Seat:	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
CHEST	Handle:	Kg:							
ABD		Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
ABDOMEN		Kg:							
X X	Seat:	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
KNEE FLEX	Ankle pad: Handle:	Kg:							
	Neck pad:	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
BACK	Handle:	Kg:							
<b>5</b>	Seat:	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 12-12-12	Number 10-10-10	Number 10-10-10	Number 10-10-10
LEG PRESS		Kg:							

### **STANDARD PROGRAMME**

	Week	Week 9		Wee	k 10	Week 11		Week 12	
	Date	d.							
EXERCISE BIXE	Seat:	Time/km							
CROSS TRAINER	Time: Distance:								
ROWING MACHINE	Time: Distance:								
TREADMILE.	Time: Distance:								
Townson Townson	Seat: Chest pad:	Number 10-10-10 Kg:							

	Week 9		Week 10		Week 11		Week 12		
	Date	d.							
EGEX	Seat: Ankle pad:	Number 10-10-10							
Noison	Handle:	Kg:							
	Seat:	Number 10-10-10							
CHEST CHEST	Handle:	Kg:							
AB		Number 10-10-10							
ABDOMEN		Kg:							
1 Table 1	Seat:	Number 10-10-10							
	Ankle pad:	V	Van	V.	V.	V.	V.	Van	V
	Handle:	Kg:							
	Neck pad:	Number 10-10-10							
BACK	Handle:	Kg:							
A STATE OF THE PARTY OF THE PAR	Seat:	Number 10-10-10							
LEG PRESS		Kg:							

### **MODIFIED PROGRAMME**

The modified programme can be used if you have been diagnosed with osteoporosis, or if your doctor recommends restricted strength training, for example due to larger or multiple bone metastases from the prostate cancer. The modification involves decreasing the resistance and doing an increased number of repetitions compared to the standard programme.

	Week	Week 1		Wee	ek 2	Week 3		Week 4	
	Date	d.							
EXERCISE BIKE	Seat:	Time/km							
CROSS TRAINER	Time: Distance:								
ROWING MACHINE	Time: Distance:								
TREADMILL	Time: Distance:								
LOWROW	Seat: Chest pad:	Number 20-20 Kg:							

	Week	Week 1		Wee	ek 2	We	ek 3	Week 4	
	Date	d.							
LEG EXTENSION	Seat: Ankle pad:	Number 20-20							
ENSION	Handle:	Kg:							
CHEST	Seat: Handle:	Number 20-20 Kg:							
FU 3	rianaic.	rsg.	rsg.	rsg.	rsg.	rig.	rig.	rig.	rsg.
ABDOMEN		Number 20-20 Kg:							
KNEE FLEX	Seat: Ankle pad: Handle:	Number 20-20 Kg:							
BACK	Neck pad: Handle:	Number 20-20 Kg:							
LEG PRESS	Seat:	Number 20-20 Kg:							

NOTES			

### IN PARTNERSHIP WITH

### Peter Busch Østergren

MD, PhD

Department of Urology

Herlev and Gentofte Hospital

Denmark

### Anne-Mette Ragle

**Physiotherapist** 

Department of Occupational- and Physiotherapy

Herlev and Gentofte Hospital

Denmark

### Mats Börjesson

Professor, Chief Physician

Sahlgrenska University Hospital/Östra & Institute for

neuroscience and physiology & CHP,

Gothenburg University

Sweden

#### Olof Akre

Professor, Chief physician Urology

Patient area Pelvic Cancer

Theme Cancer

Karolinska University Hospital, Solna

Sweden

### Anders Kjellman

MD, PhD, Senior Consultant

Patient Area Pelvic Cancer

Theme Cancer

Karolinska University hospital, Huddinge

Sweden

### Markus Aly

Assistant Chief Physician Urology, FEBU, PhD

Patient area Pelvic Cancer

Theme Cancer

Karolinska University Hospital, Solna

Sweden

#### Andrea Porserud

Specialist physiotherapist oncology

Patient area Pelvic Cancer

Theme Cancer

Karolinska University Hospital, Solna

Sweden

### Astellas Pharma a/s

Kajakvej 2 DK-2770 Kastrup +45 43 43 03 55 kontakt.dk@astellas.com www.astellas.dk

#### **Astellas Pharma**

Hagaløkkveien 26 NO-1383 Asker +47 66 76 46 00 kontakt.no@astellas.com www.astellas.no

#### Astellas Pharma AB

Box 21046 SE-200 21 Malmö +46 40 650 15 00 info.se@astellas.com www.astellas.se

#### **Astellas Pharma**

Vaisalantie 2–8 Fl-02130 Espoo +358 9 8560 6000 info.fi@astellas.com www.astellas.fi

