

Cardiac rehabilitation heart failure exercise programme

Horton General Hospital

Information for patients



Name:

Start Date:

Graduation:

Site: Horton General Hospital, Cardiac Rehabilitation Department

Please contact us if you are unable to attend.

If we have not seen or heard from you for two weeks you will be discharged from the programme.

**Cardiac Rehabilitation Department, Horton Hospital, Oxford Road,
Banbury, OX16 9AL**

Telephone numbers: (01295) 229 753 or (01295) 229 426

Safety considerations for exercise sessions

You have been provided with an exercise folder. This exercise folder contains a lot of information about physical activity and the exercise sessions that you will be coming to, here at the Rehabilitation Department.

Please read through your folder before you attend your first session.

It is there for your information and to help you during your exercise programme with us. It will contain your personal exercise programme so please remember to bring it with you to every session.

I have read and understood the information that has been provided regarding exercising safely. I agree to take part in the exercise sessions, undertake a sub-maximal exercise test and to follow my prescribed exercise programme.

Signed:

Please print name:

Date:

Why is exercise and physical activity so important?

Welcome to the Heart Failure Exercise Programme run by the Oxford University Hospital Cardiac Rehabilitation Team. Being regularly active plays a very important role for your heart condition.

Current guidelines state that to gain health benefits we all need to do physical activity or exercise on most days of the week, at a moderate intensity level for a total of 30 to 45 minutes.

Physical activity is any bodily movement which makes you use more energy than normal i.e. walking your dog, gardening and cleaning.

Exercise is a type of physical activity. It is structured, planned and repetitive movements which are done with the specific aim to maintain or improve your physical fitness and health related fitness. This is what you will be doing with us.

Health related fitness means your ability to perform your daily activities such as housework, gardening and shopping.

Health benefits from exercise for heart failure:

- strengthen muscles around your body to reduce the demand on your heart, therefore improving your ability to perform daily living activities
- increased confidence and sense of well-being
- lower anxiety and depression
- improved cholesterol levels
- improved blood sugar control
- reduced breathlessness
- fewer visits to the doctor and hospital
- improved feelings about being able to cope after being in hospital.

What is even more encouraging is that these changes are possible with light to moderate physical activity. So don't panic – we aren't going to make you run marathons!

Your exercise programme will be designed around you, your needs and what you are able to do, and will gradually progress as you become fitter and more confident. During the sessions you will be taught how to do the exercises safely and effectively.

How do I increase my activity levels?

We get most benefit from doing exercise and physical activity on a regular basis. To gain the maximum benefit, you should aim to do 30 minutes of activity every day. Even though you are coming to supervised exercise sessions, it is very important that you exercise at home on other days. Don't forget to always warm up before you exercise and cool down afterwards.

Your weekly plan could include walking, exercises you have done in class, gardening, and housework. You can split up your goal of a 30-minute activity session – for example you could do 10 minutes of housework, 10 minutes of walking and 10 minutes of our exercises.

A copy of our exercise class programme is enclosed at the back of this book. After completing a number of exercise sessions and talking with a member of staff you should begin to do your exercises at home.

Additional activity recommendations

You may be keen to resume other leisure activities or pastimes, such as tennis or golf. Our advice would be to first discuss this with a member of staff. Once you have attended some supervised exercise sessions and we have had a chance to assess your fitness level and exercise capabilities, we will then be happy to give you guidance.

Exercise diary

At the back of this folder you will find an exercise diary. Record your exercise and activity details for the first month that you attend our classes. We will review your diary during the programme. This will give you an accurate and useful record of the progress that you are making.

The structure of the programme

Your exercise classes will take place at the Horton General Hospital Cardiac Rehabilitation Department on:

Day: _____ **Time:** _____

An information session will take place after the exercise class. There will be a different topic each week and it will be a good opportunity for you to discuss the information and ask any questions you might have.

We offer you 8 sessions of exercise. At the end of your last session on your graduation day, we will give you information about continuing with regular activity and options which are available to you after the supervised programme has finished.

What to bring with you

- this exercise folder
- your GTN spray/tablets (if you have been given them)
- your blood glucose monitor (if you are diabetic)
- fast acting bronchodilator inhaler (if you are asthmatic)
- a bottle of water.

When you come to the gym please wear loose comfortable clothing, for example:

- ✓ Soft-soled shoes or trainers
- ✓ Sweatshirt or jumper with a T-shirt or shirt underneath
- ✓ Tracksuit trousers, jogging bottoms or shorts
- ✗ For safety reasons please do not wear sandals or slip on shoes
- ✗ Please do not wear denim or cords

What will happen in the classes?

The class will follow the same format every time, as described below:

- check-in (blood pressure, heart rate, weight and blood sugars if diabetic)
- warm-up (15 minutes in total)
- circuit exercises
- cool down (10 minutes)
- check-out (blood pressure and heart rate check).

You must inform the cardiac rehab staff when you are checking-in if:

- you have forgotten to take your medication
- you have had your medication changed
- you have been feeling unwell (if you are taking antibiotics, have chest discomfort, excessive shortness of breath, coughs, colds, stomach upsets, discomfort in joints or muscles).

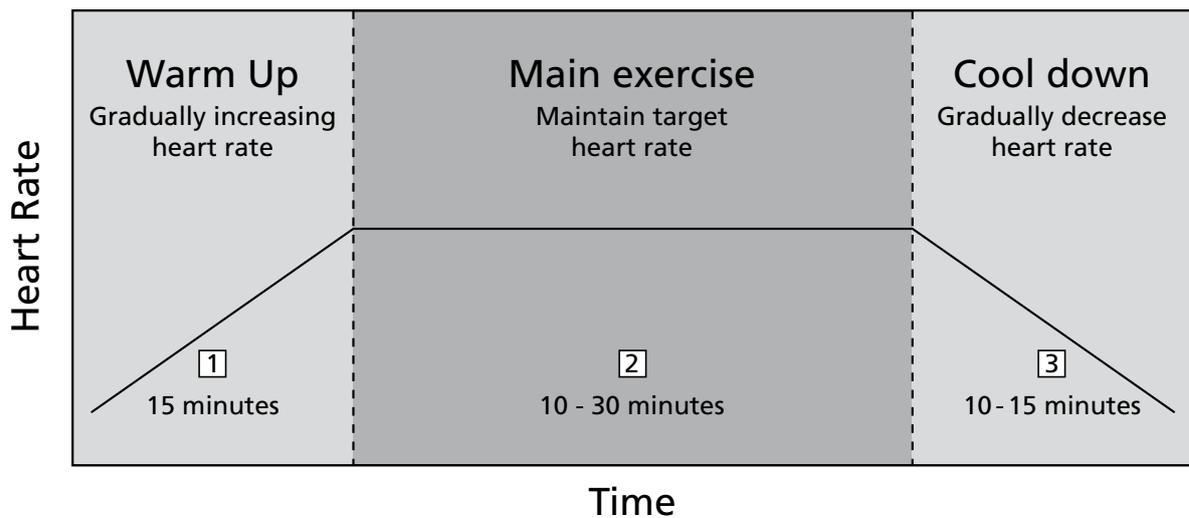
During the sessions you must remember to **keep your feet moving** whenever possible (so no standing still chatting!). This rule should apply to all three phases of your exercise session (warm up, main session and cool down), as well as when you are exercising at home. This helps maintain a good blood pressure and helps to prevent you feeling dizzy or lightheaded. It also reduces the amount of work that your heart has to do. If you need to sit down and rest at any stage then do, however, you must still keep your feet moving.

Sensible precautions

- Exercise only when you feel well. **If you are unwell with a virus, cold, tummy bug or you are taking antibiotics please do not attend the exercise session.** We recommend that you wait at least two days after the symptoms have disappeared before starting any type of physical activity. If you are unsure if you are well enough to exercise, please call and ask a member of the team before going to the gym.
- Make sure that you have eaten a light meal approximately 1-2 hours before exercising. Do not exercise on either a full or completely empty stomach.
- Do not exercise when the weather is very hot or very cold. Dress warmly when exercising in the cold. If it is hot, slow your pace.
- Know your limits. Exercise regularly but do not exceed the levels which have been recommended to you. Listen to your body.
- Take your medication as normal each day when you are exercising. If you have been given a GTN spray or tablets, remember to keep them with you at all times. You should never stop any of your medications without discussing it with your GP.
- You must compare how you feel each day with your usual symptoms and capabilities. If you develop any new symptoms or find that your usual symptoms are worse (i.e. more breathlessness, more frequent angina, swollen ankles) you must inform your GP as soon as possible.

Warming up and cooling down

Warming up and cooling down are just as important as the main activity itself.



Warm up exercises

Always warm up with light exercise at the start of the session.

By gradually increasing the workload of the heart, it is able to adapt slowly to being made to work harder. This is much safer than suddenly increasing the workload. It helps reduce the risk of angina and disturbances in your heart rhythm by making sure that the coronary arteries are opened up and that your heart has a good supply of oxygen.

The level of effort you put into these warm up and cool down exercises can be measured using the Breathlessness Scale. This scale is shown later in the booklet.

Progressive warm-up exercises:

- Light pulse raising activity (e.g. seated feet movements, slow walking, low level cycling) 5mins
- Stretching activities 5mins
- Light pulse raising activity (e.g. add in arm movements to seated or standing movements, low level cycling) 5mins

A total of 15 minutes at Breathlessness Scale 1-2 (very slight, slight).

Cool down exercises

The cool down reduces the risk of sudden heart problems and should be taken very seriously. You need to gradually lower your pace during the cool down. The goal is to bring your body back to its resting state.

By gradually returning your body to rest you reduce the risk of disturbances in your heart rhythm, which could happen if you stop exercising suddenly. It also helps reduce the risk of fainting or dizziness which could result from a rapid drop in blood pressure if you suddenly stop exercising.

Cool down exercises:

- Light/Easy Activity (slow walking, seated marching feet) 5 mins
- Stretching 5 mins

A total of 10 minutes at Breathlessness Scale 1-2

Examples of the warm-up and cool-down exercises are included at the back of this book.

HOW HARD SHOULD I BE WORKING?

Monitoring your exercise level

It is important to make sure that you are not pushing your body too hard, but also that you are working hard enough to achieve the benefits that we have discussed. During the programme we will show you various ways of checking how hard you are working. We also encourage you to use these methods whilst exercising when you are at home.

1. Measuring your heart rate (pulse)

Your heart rate is measured by counting how many times your heart beats per minute. During exercise your heart rate will increase (your heart will beat faster) in response to the demand of working muscles for oxygen from your blood.

- Lightly place your index and middle fingers (never use your thumb) on the inside of your wrist. You should feel a slight pulsing as your heart pushes blood around the body.
- Count the number of beats that you feel for a 15 second period. Multiply this by 4. This is your heart rate.

We will give you a recommended heart rate range specifically for you when you start to exercise. This range is related to you, your diagnosis and your medication, so everyone will be different. Your target heart rate is just a guide.

2. Breathlessness score

This is a scale that asks you to rate the level of your breathing. It starts at number 0 where your breathing is causing you no difficulty at all and progresses through to number 10 where your breathing difficulty is at its hardest (maximal).

How much difficulty is your breathing causing you right now?

(Adapted Borg, G. CR 10 scale 1982, 1998)

Modified Borg Breathlessness Scale

0	Nothing at all	(Sitting down, relaxing)
0.5	Very, very slight	(Just noticeable)
1	Very slight	
2	Slight	(Pottering around shops)
3	Moderate	(Walking briskly)
<hr/>		
4	Somewhat severe	
5	Severe	
6		
7	Very severe	(Climbing multiple flights of stairs without a break)
8		
9	Very, very severe	(Almost maximal)
10	Maximal	(Exhausted, short of breath, muscles are aching, have to stop!)

We would like you to be working at the level of moderate to somewhat severe (Level 3-4). If you would describe your breathless level as 'severe', then you are working too hard and need to slow down.

3. Talk test

This is another simple way of assessing how hard you are working. You should be able to speak in complete sentences and feel a little out of puff. It is ok to feel a little out of breath while exercising, however if you find yourself gasping and short of breath, then you are working too hard and need to slow down.

Safety advice

Please read and follow these safety guidelines.

1. What should I do if I experience any pain while exercising?

STOP whatever you are doing, no matter where the pain is coming from. You should never experience any pain during or after physical activity.

IF YOU ARE IN THE MIDDLE OF AN EXERCISE CLASS, TELL ONE OF THE MEMBERS OF STAFF IMMEDIATELY.

2. Are there any other reasons that I should stop exercising?

Yes, you should listen to your body and stop exercising immediately if you experience any of the following:

- pains or tightness in your chest
- palpitations
- **excessive** shortness of breath
- feeling dizzy or faint.
- pain, swelling, stiffness in joints
- **excessive** sweating
- sickness/nausea

Please let one of the cardiac rehabilitation staff know IMMEDIATELY if you are experiencing any of these problems.

It is also important that you stick to the prescription of exercises which is given to you. If you feel that you are capable of working at a higher level than your recommended programme, do not just increase your programme yourself. Instead, talk to a member of the rehabilitation team and we will tell you if we think it is appropriate and safe for you to do so.

How to contact us

We sincerely hope that you enjoy these exercise sessions. If you have any questions or concerns, please do not hesitate to ask one of the members of staff – please see our contact details at the front of this book.

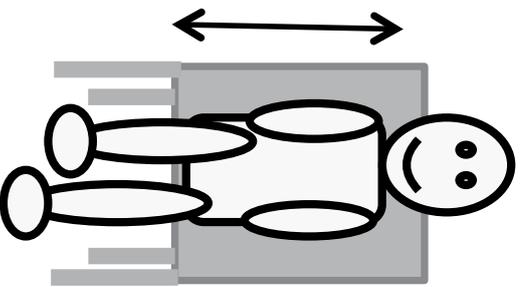
Heart failure home exercise circuit

Warm-Up: 15mins

Perform seated or standing

Light Activity: Pace at which you feel you can sing!! 1-2 on the Breathlessness Score.

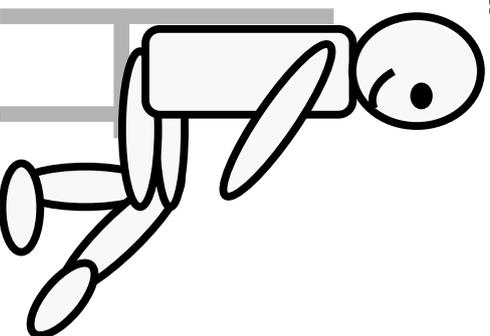
1.



Sitting marching feet

- + Look left and right
1min
- + Roll shoulders forward
1min
- + Roll shoulders backward
1min
- + Marching, arms at side
1min

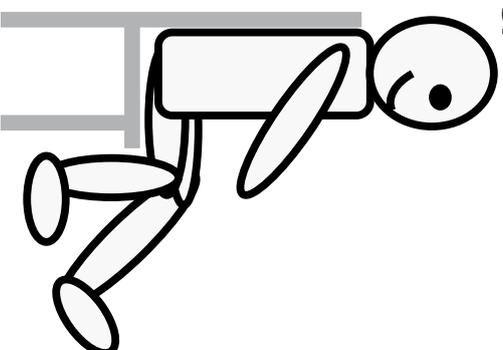
2.



Toe tap in front

- + Arm curls: 1 arm
1min
 - + Raise 1 arm in front
1min
 - + Running arms
1min
 - + Marching, arms at side
1min
- Remember:
If it gets too difficult, use one arm at a time or slow down.

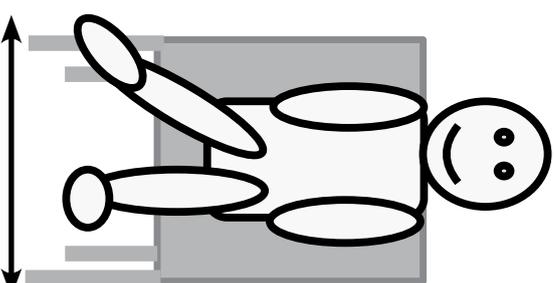
3.



Heel digs

- + Arm curls:
2 arms together
1min
- + Raise 2 arms in front
1min
- + Slow motion running
arms
1min
- + Marching, arms at side
1min

4.



Sitting toe tap to the side

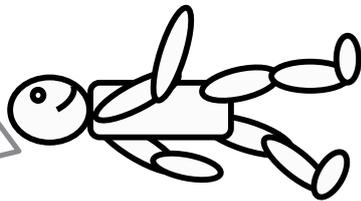
- + Raise 1 arm to the side
1min
 - + Breast stroke
swim arms
1min
 - + Raise arms to the side
1min
- Remember:
If it gets too difficult, use one arm at a time or slow down.

Main Exercises: Perform each exercise for the same time as you do in the exercise class

Moderate Activity: Pace at which you can maintain a conversation 3-4 on Breathlessness Score

Listen to your body and take a break if you need to but **KEEP YOUR FEET MOVING**

Breathing =
3-4
Puffed but
can talk

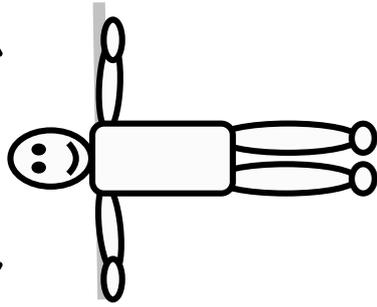


Walking

Walk around or on the spot at a comfortable speed at which you can hold a conversation.

FOR YOU

Feet
moving

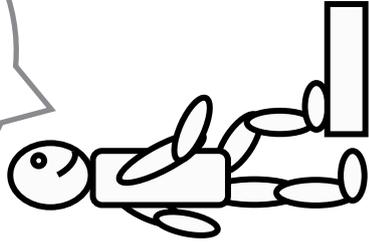


Theraband

Extend Theraband as shown in exercise class. Keep feet moving.

FOR YOU

Breathing =
3-4
Puffed but
can talk

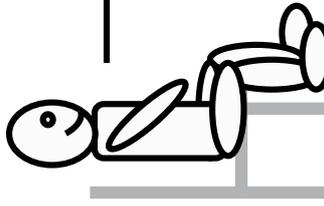


Step up

Step up and down on the bottom step of your stairs or step of house.

FOR YOU

Take a break if you need to but keep feet moving



Sit-stand

Using a sturdy kitchen chair, sit down and stand up.

FOR YOU

Feet
moving



Arm weights

Using house-hold objects, such as a tin of beans, complete the arm exercises shown in exercise class. Keep feet moving.

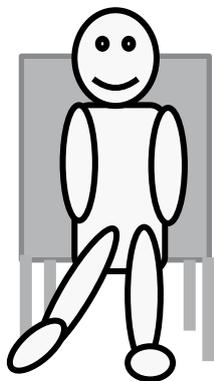
FOR YOU

Cool Down: 10 mins

Do sitting down. Remember the goal is to gradually slow down.

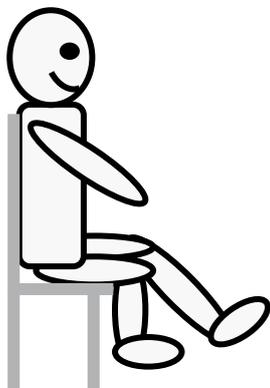
Light Activity: Pace at which you feel you can sing!

1-2 on the Breathlessness Score



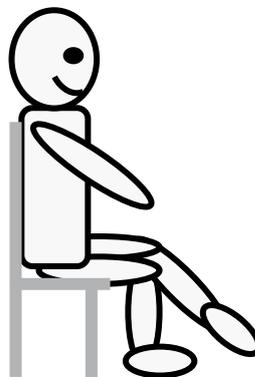
Sitting toe tap to the side

2mins



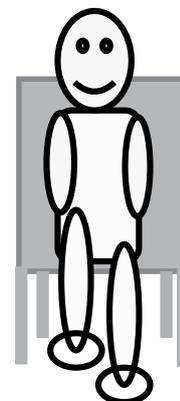
Heel digs

2mins



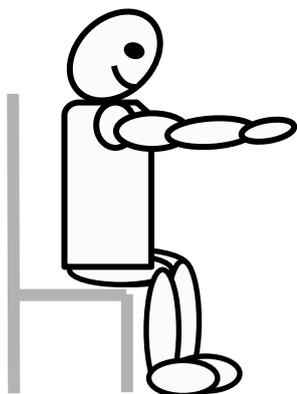
Slide toe tap in front

1min



Heel raises

1min



Upper back stretch:

30 sec

- Lock fingers together, stretch arms out in front, reaching as far out as you feel comfortable

- Repeat

Continue with heel raises.



Chest stretch: 30 sec

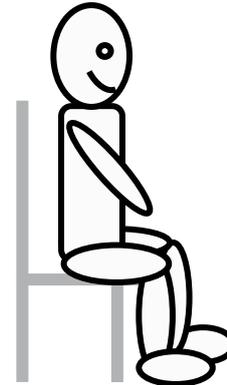
- Sit forward on chair
 - Place hands on lower back
 - Gently move elbows towards each other
 - Keep back straight
- Repeat

Continue with heel raises.



Leg stretch: 30 sec

- Sit forward on chair
 - Straighten one leg in front
 - Reach toward outstretched leg
- Repeat with other leg.



Deep breaths: 1 min

- Take 10 deep breaths
- Raise heels on breath in
- Lower heels on breath out.

References

The information in this booklet is based on evidence. The following references were used:

American College of Sports Medicine (2006) Guidelines for Exercise Testing and Prescription. 6th Edition. Lippincott, Williams and Wilkins. Baltimore.

Borg, G. (1998) Borg's Perceived Exertion and Pain Scales. Human Kinetics. Champaign, Illinois.

British Association of Cardiac Rehabilitation (2007). BACR Phase IV Exercise Instructor Manual, 4th Edition. Human Kinetics, Leeds.

Department of Health (2000) National Service Framework for Coronary Heart Disease. DOH. Chapter 7.

Thow, M. (2006) (Ed) Exercise Leadership in Cardiac Rehabilitation: An evidence based approach. Whurr Publishers Limited. Chichester.

Supervised Exercise Programme

KEEP FEET MOVING

Date			
Pre Exercise			
HR(bpm) reg / irreg		BP	
Weight (Kg)		BS	
Comments			
Medications			

Date			
Pre Exercise			
HR(bpm) reg / irreg		BP	
Weight (Kg)		BS	
Comments			
Medications			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
HR(bpm) reg / irreg		
BP		
BS		
Comment		

Post Exercise		
HR(bpm) reg / irreg		
BP		
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Comment		

Supervised Exercise Programme

Date			
Pre Exercise			
HR(bpm) reg / irreg		BP	
Weight (Kg)		BS	
Comments			
Medications			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
HR(bpm) reg / irreg		
BP		
BS		
Comment		

Date			
Pre Exercise			
HR(bpm) reg / irreg		BP	
Weight (Kg)		BS	
Comments			
Medications			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
HR(bpm) reg / irreg		
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Supervised Exercise Programme

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Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
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Medications			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
HR(bpm) reg / irreg		
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Comment		

Supervised Exercise Programme

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HR(bpm) reg / irreg		BP	
Weight (Kg)		BS	
Comments			
Medications			

Warm-up			
LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

Post Exercise		
HR(bpm) reg / irreg		
BP		
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Comment		

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Comments			
Medications			

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LAP 1			
Exercise	Time	Breathing	HR
LAP 2			
Exercise	Time	Breathing	HR
Cool down			

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