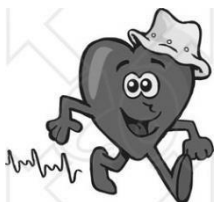


the Road to Recovery after **Heart Surgery...**



KAPDI•DE KOCK
Physiotherapists
special interest in cardiopulmonary rehab and respiratory care





Honey...I'm HOME! ...

Your surgery is done, and you are well on your way to recovery...

YOU ARE GOING HOME!!!!!!

You may have many questions-this is a basic guideline of what to expect, home advice & precautions to follow when you are at home. **Bear in mind that everyone is unique**

& their experiences & recovery will vary....

Plan your trip home. You will not be able to drive yourself, so arrange transport to your doorstep. Wear loose fitting clothes. If the journey is long & the weather is cold, take a pillow & blanket with. Be as comfortable as possible in the car & take frequent stops to rest & walk around.

If you must take a plane, get clearance from your Dr & make arrangements for assistance at the airport & on the plane for transport & luggage.

HOME is where the heart is

When you are at home, your recovery may seem to go slowly because you cannot resume your normal routine. This may become frustrating. Remember that the operation itself is a huge assault on your body & it takes $\pm 4-6$ weeks to start feeling yourself again. **BE PATIENT WITH YOURSELF.**



Although you were looking forward to going home, leaving the controlled environment of a hospital may cause some anxiety. It's normal to have good & bad days, so it's helpful to have someone around for the first 2 weeks.

Plan your day & **GO SLOWLY.** Get dressed into comfortable clothes every morning-it encourages activity for the day. Avoid sitting with crossed legs for long periods, as it may cause swelling or blood clots. You may do light household chores, but don't expect to complete it at your normal speed, eg. Dusting 1-2 pieces at a time or washing 1-2 cups/dishes at a time. Heavier chores like washing pots, laundry, sweeping, vacuuming, walking the dogs, making up beds, lawn mowing etc. you will have to delegate for the next 4-6 weeks.

If you have stairs, negotiate them slowly, resting when tired & use the railing for support, but not to pull yourself up.

STRICTLY NO VISITORS for the 1st week. Although in good faith, visitors can be exhausting. Take the time to settle into a new routine. Restrict guests to outside of your rest times. **YOUR RECOVERY IS A PRIORITY.** Excuse yourself from company if you are feeling tired, they will understand.

Measure your recovery on a weekly & not daily basis. Balance your activity and rest times.



SLEEP vs REST

Your body only heals itself while you are sleeping. It is imperative that you get at least ± 8 hours of **NIGHT SLEEP.** Fatigue post operatively is normal. Tasks like brushing your hair, bathing & shaving may tire you, so plan 30-60min rest periods between tasks. Rest in your favourite chair or couch but avoid going to bed & napping during the day & avoid sitting for long periods at a time.

BATHING

During the next 6 weeks it would be better for you to shower instead of bathing. Soaking your wound sites may cause irritation. Getting in & out of a slippery bath & pulling yourself up may cause stress on your incision site. If you are forced to bath, try to get a bath bench so that you are sitting & have someone close to assist you with getting in & out. If you have a shower, get a secure stool in the shower so that you can sit for periods. Use warm water, hot water could cause you to feel weak & dizzy. Avoid direct water pressure on or rubbing your wounds. Just gentle washing with unscented soap & patting dry. Get someone to wash your back so you can avoid stretching your shoulders all the way to the back. Do not apply any lotions over the incision sites.

Weigh yourself every morning, sudden weight gain by 1kg+ and swollen feet & hands may be a sign of water retention-**inform your Dr.**





NUTRITION, you are what you eat

Eating regular nutritious meals are imperative to healing & replenishing your energy reserves. Smaller more frequent protein rich meals may be better. However, if you are a diabetic or have kidney disease, **it is essential to discuss any dietary plan with your Dietician**. Uncontrolled diabetes increases your risk of infection & delays the healing process and kidney disease may require a more conservative protein diet. Calorie counting applications on your mobile is a good way of keeping track of

your caloric intake. It is normal to have a poor appetite after surgery. This along with the pain meds may make your bowel sluggish & cause constipation-**do not strain yourself. Contact your DR** to manage it. Although it's important to take in adequate amounts of fluid, it is also vital that you adhere to any fluid restrictions the Dr may have set. **Fluid is any potential liquid that you ingest viz. ice, soup, jelly etc.** Too much water & salt in your diet may cause strain on your heart & "water on the lungs". Rest for 1-1,5 hours after meals, before exercising. Avoid refined starches & sugars, fatty & salty foods, & excessive caffeine. Bake, grill or air fry your meals.

Your meals should consist of fresh fruit, vegetables, lean meats & whole grain foods.

If you cannot manage regular meals, ask your Dr or Dietician to recommend a protein shake. **Malnutrition will cause muscle wasting, lethargy, general weakness & delayed healing.**

DRIVING

Your breastbone takes ± 6 weeks to heal and twisting of the sternum should be avoided. Therefore driving/riding during this time is prohibited. If you were involved in an accident (driving/riding a car/cycle/ lawn mower/horse) you could injure your sternum & the underlying organs. Also, your concentration & reflex time may be slow. You can be driven, but lengthy trips in the car requiring prolonged sitting should be avoided until you are fully recovered. To prevent swelling stop every 2 hours to stretch & walk around.



WOUND CARE & PAIN

The location of your wounds will depend on the approach your surgeon chose. A vertical cut through the breastbone takes ± 6 weeks to heal while a horizontal cut between the ribs not involving bone will heal much faster-but may still be painful. During the next 6 weeks you may experience discomfort/itchiness/numbness &/or redness around your chest & leg wounds. Neck, shoulder & arm pain are normal

too. The incision scar will start diminishing in appearance, but may still be sensitive

to changes in temperature, too little or too much activity & your sleeping position. Your Dr may prescribe pain medication for you to use at home. For extra pain relief (if your wound is completely dry) you may apply a hot pack **wrapped in a thick towel** on a medium heat to the wound site for ± 20 min. Avoid over heating the hot pack, your sensation may be diminished due to pain meds & you may be at risk of burning. To relieve stiffness in your shoulders & neck, do gentle shoulder rolls & neck rotations. Maintain a good upright posture, avoid slumping your shoulders forward. Some scars develop keloids, which are raised bumps. There are a variety of scar therapies available eg, corticosteroid shots & pressure dressings. If you have a keloid causing discomfort, talk to your Surgeon or local Plastic Surgeon regarding available treatments. When your wound is dry, you may use tissue oil or any lubricant to massage the scar with deep pressure. Applied heat may also help break down adhesions within the scar to flatten it.



WARNING SIGNS!!!!



- SUDDEN ONSET OF SEVERE OR UNRESOLVING PAIN
- INCREASED REDNESS or SWELLING AROUND THE WOUND SITE
- TENDERNESS OR INCREASED TEMPERATURE AROUND THE WOUND SITE
- OOOZING FROM THE WOUND SITE THAT IS INCREASING, CHANGING IN COLOUR, BLEEDING or FOUL SMELLING
- IF YOU DEVELOP A HIGH FEVER

ALERT YOUR SURGEON!!!



LIFTING & CARRYING

Avoid carrying & lifting anything heavier than 5kgs for the next 6-8wks. Also avoid sticky windows, doors & tight jar lids during this time. These activities are stressful on the wires keeping your breastbone together. Your sternum is still unstable & you may feel a slight clicking initially. This should disappear in ± 12 weeks.

SEX & INTIMACY

Surgery can be very emotionally traumatic for both yourself & your partner. You may have many fears regarding resuming sexual relations. It is important to discuss this with your Surgeon & Cardiologist as every case is different.

According to the American Heart Association, if you can climb 2 flights of stairs without gasping or chest pain, then you can comfortably resume sexual activity. If you have your doubts, then perhaps you should spend the first few weeks getting to know each other again.

Hugging & caressing are helpful ways of becoming more relaxed with each other.

When you are ready, keep the environment warm & familiar. Choose positions that do not put any stress on your upper limbs or chest for at least ± 8 weeks & ask your partner to play a more active role.

It is fine if your first attempts are not successful. Practice makes perfect.

Pregnancies should be avoided for an entire year, perhaps permanently in some cases. Please discuss family planning with your Physician.



YOUR EMOTIONS

Besides the physical trauma of the surgery, you may also feel emotionally stressed.

The heart plays a role in the synthesis & secretion of certain hormones: Dopamine, the pleasure hormone & Oxytocin, the bonding hormone. With heart disease or heart surgery you may experience intense sadness & be tearful/irritable. 20-40% of patients become depressed after surgery. Communicate these feelings to your love ones. It is

very normal & may resolve on its own. If these feelings persist after 3-4 weeks, if you struggling to get through the day, feeling glum/down all the time then it will be beneficial to mention it to your Dr or consult your local counsellor, psychologist or spiritual leader. Albeit normal, prolonged bouts of depression can affect your quality of life.

MEDICATION, juggling your jelly-beans

Most patients require medication during their recovery period. This may or may not be different from the medication you were taking before the surgery. They usually include pills to

- control your blood pressure
- control your heart rate and rhythm
- thin your blood and prevent blood clots
- lower your cholesterol

If diabetic, you will need to continue with meds/insulin. If you have a water retention problem, you may be on a water pill. Taking water pills can cause huge inconveniences.

TIP: Stay close to a bathroom for at least 6 hours after you have taken them.



REMEMBER:

- KEEP YOUR PILLS CLEARLY LABELLED IN THEIR SEPARATE CONTAINERS
- TAKE THE CORRECT DOSAGE OF THE CORRECT MEDICATION AT THE CORRECT TIME
- DO NOT STOP, INCREASE or DECREASE THE AMOUNT OF YOUR MEDICATION WITHOUT YOUR DRs KNOWLEDGE
- IF YOU MISTAKENLY SKIP A DOSE, DO NOT DOUBLE UP THE NEXT DOSE
- MEDICATION NAMES MAY CHANGE, ASK YOUR PHARMICIST TO EXPLAIN THEIR PURPOSE IF YOU ARE UNSURE
- YOUR MEDICATION IS SPECIFIC FOR YOU, DO NOT GIVE THEM TO ANYONE ELSE
- DO NOT OMIT YOUR WATER PILL



EXERCISE, The Magic Pill

For the first week you should stay in & around the house.

At week 2 you can start your exercise program, which should preferably be **walking only** for the first 6 weeks. Reconditioning yourself safely is a slow process. After surgery exercise will decrease your risk of clot formation & pneumonia/chest infections. It increases muscle strength, reduces fatigue & improves circulation & bowel function.

Start off with short walks 100-200ms/5-10mins twice daily. Avoid walking in extreme temperatures & on inclines. Walk before meals or 1-1.5hrs after meals. If you can manage the short distances without feeling exhausted, then you may gradually increase your distance every 3-4 days. Listen to your body-if you feel overly tired after a walk, reduce the distance of your next walk. After 8 weeks you should be able to walk 1km comfortably & you can start incorporating other exercises like cycling & swimming into your routine, provided it causes no discomfort to the chest area.

Avoid weight training, rowing & push-ups for at least 6 months. When you can walk comfortably without undue discomfort or shortness of breath for ± 45 min then you can increase your pace.

Regular exercise will now have to be part of your lifestyle change. Although heart surgery may restore adequate blood flow to the heart, **it does not stop heart disease.**

Phone applications that record your steps, distance & time may keep you motivated.

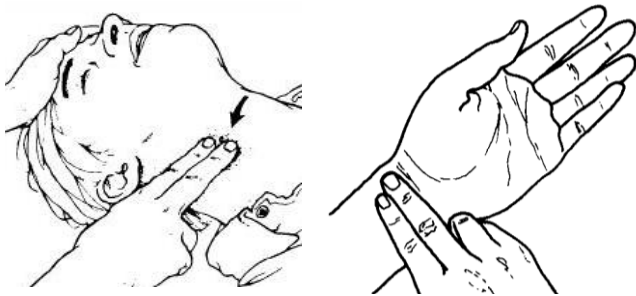
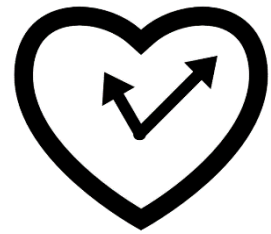
RECOMMENDED DOSE POST RECOVERY: 30MIN BROKEN UP (10+10+10) DAILY FOR 3-5 DAYS WEEKLY

HEART RATE, counting the beats

When starting an exercise regime, it is important to consider your heart rate at rest and during exercise ie **RESTING HEART RATE (RHR)** , **TARGET HEART RATE (THR)** and **MAXIMUM HEART RATE (MHR)**

How to measure your RHR?

On waking up or resting for 20min place your finger pads to your pulse points. Either your neck pulse point (Carotid Pulse) or your wrist pulse point (Radial Pulse) can be used



It may take you a few seconds to find a spot where the pulse is strongest.

Watch the second hand of the clock and count how many beats you feel in 15secs.

This value x 4 = RHR eg. 20 beats in 15 sec X 4 = a RHR of 80 beats per minute.

An optimal ie. Safe and beneficial exercise program needs to focus on reaching your Target Heart rate (THR).

Your THR is a range and initially should be between 30%-50% of your RHR increasing to 50%-80% of RHR when reaching higher fitness levels.

Post cardiac injury be it due to cardiac event or surgery, it is best to discuss your exercise plan and your THR with your Dr and Rehab specialist.

How to measure your THR?

Eg $(RHR \times 30\%) + RHR = (80 \times 0.3) + 80 = 104$ AND $(RHR \times 50\%) + RHR = (80 \times 0.5) + 80 = 120$
therefore, your THR range is 104 bpm < 120 bpm

What is your Maximum Heart rate?

a simple formula will assist in determining your MHR

$220 - \text{age} = \text{MHR}$ eg. $220 - 60 = 160$

to exercise safely, avoid reaching your MHR

How do I know I am reaching my THR during exercise?

A good fitness tracker that measures your HR can guide you within a 20-beat accuracy range of your HR during exercise.

In the absence of a fitness tracker stop briefly during exercise and check your HR as above palpating your pulse points, counting the beats for 15 secs and X by 4.

EXERCISE has a systemic effect on your health like no other intervention

- Reduces inflammation in your arteries
- Reduces bad cholesterol
- Reduces blood sugar levels

- Regulates blood pressure
- Improves mood & energy levels
- Improves sleep & relaxation
- Boosts memory
- Controls stress, anxiety & depression
- Helps with weight loss
 - Reduces the perception of pain
- No adverse side effects... &!!!!
- It is FREE!!!!

During your recovery you may want to consult with a cardiopulmonary rehab specialist who will guide you with your exercise regime in the final stages of your rehab.

TIPS:

- wear comfortable clothes when exercising
- carry water with you
- get an exercise buddy, it will be beneficial for both of you
- when the weather is bad, use the malls



WARNING SIGNS!!!!

- If you experience palpitations, severe shortness of breath, chest pain, dizziness or nausea whilst exercising - **STOP IMMEDIATELY**
- If your shortness of breath is getting progressively worse over 2-3 days **alert your Dr**
- If your fatigue is increasing and energy levels decreasing progressively, **alert your Dr**

WORK, getting back to the grindstone

Decisions regarding your vocation will generally be made at your 4/6-week check-up & will largely depend on what your work entails & its demand on your physical strength. If your work requires heavy manual labour, you may need to delay your return. This needs to be discussed with & advised on by your Surgeon and Physician.



DOCTORS VISITS

It is essential that you do not skip your Dr's visits & that you report anything out of the ordinary as soon as possible.

Keep the numbers of your DR's, hospital, pharmacist and emergency services handy

STOP SMOKING, no ifs, &'s or BUTTS

Smoking causes 1 in 5 deaths & continues to be a risk factor after surgery. It raises your blood pressure, narrows your blood vessels with fatty deposits & causes the coronary arteries to spasm. Quitting is a crucial part of your recovery & lifestyle change going forward. If you are struggling, there are many cessation groups or clinics you could benefit from. Speak to your DR about any medical assistance available.



DIABETES - Carbs, the killer

Diabetes is known as the silent killer & is now ranked as deadly as HIV in South Africa.

According to the Heart Foundation, your sugar levels need to be kept under 10mmol/L.

Sugar levels over 12mmol/L for any period, will lead to organ & tissue damage. During your recovery high sugar levels will cause delayed wound healing & put you at risk for developing infections.

Optimum sugar levels can be managed with **EXERCISE**, **low carb DIET** & taking your **Diabetic Medication** as prescribed.

CONTACTS

Physiotherapy Home Visits : Miss K.Cason on 083 555 3229
: Miss T Vermeulen on 063 135 3010
Clinical Psychologist : Ms E.Pecego on 084 227 0197
Dietician : Mr A.Rawoot on 082 462 6233
Stop Smoking Clinic : 021 949 5941/ 082 745 7779



best wishes for a speedy & complete recovery...
the KAPDI•DE KOCK TEAM