

**Useful tips to recover after surgery**

## Recovering at home

The first 4-6 weeks after discharge are the most important time to recover after cardiac surgery.

It's important to be aware of your body and your emotions to ensure a quick recovery.

As you return home you'll start recovering your muscle tone and slowly resuming your normal activities. Stop your tasks whenever you get tired. Use common sense and set yourself reasonable goals.

Physical activity will be similar to the one you were able to do before surgery and will gradually increase day by day. If you get tired, try to reduce your activity and resume the rehabilitation program more slowly.

Emotionally, your recovery will seem to pass slowly. Your physical function will be slowed down not just because of your reduced exercise and all the medications you have taken, but also due to the surgery and physical stress.

During this time, you are likely to feel more emotional and you may even start crying for no apparent reason. Stress may develop after overcoming your hospital stay.

Have a good recovery!

*The ISMETT Cardiac Surgery team.*

## Vaccination

Vaccination is an essential aspect of cardiac patient care. Some important vaccines were offered to you during your stay at ISMETT. We do however recommend you constantly refer to your GP to ensure compliance with your vaccination schedule.

## Wound Care



The following symptoms are normal and should clear up within a few weeks after your surgery:

- Skin of a different color compared to the surrounding tissue.
- Slight redness along the incision edges.
- Itching near or around the incision.
- Slight swelling along the incision, especially in your leg (if so, be sure to use anti-embolism stockings).
- Small amount of clear or pinkish drainage from the incision.

You will find wound care instructions in your discharge letter. Unless otherwise specified, we recommend you clean your incision every other day with sterile gauzes soaked in normal saline solution as you change your dressing.

Obese and/or diabetic patients more at risk of developing infections, should dress their incisions every day using a disinfectant solution instead of the normal saline solution.

In any case, the incision can be left uncovered (patch free) after its healing (usually 7-10 days). Always wear a clean cotton shirt that has to be changed daily.

For a couple of months after surgery, avoid going into the sea or to a swimming pool, protect your incision from direct sunlight (always cover your chest with a cotton shirt) and do not swim to ensure a proper synthesis of the sternal bone and a quick healing of your wound.

In order to preserve your incision we recommend all patients use the appropriate postoperative chest belt for at least 40 days after the surgery.

### **IMPORTANT!**

If you have any of the following symptoms, call your general practitioner right away:

- Redness that spreads out more than one inch from the incision edges, and increased warmth in the skin around the incision.
- Large amount of clear or pinkish drainage.
- White, yellow, or green drainage coming from the incision.
- Foul or sweet odor coming from the incision.
- Increase of swelling, tightness, or pain around the incision.
- Fever higher than 101 °F (38.3 °C) or chills.
- Excessive fatigue.



## Cardiac rehabilitation

### DRIVING



The sternum usually recovers 4-6 weeks after surgery.

Do not drive a car in the first six weeks after your discharge. Your reactions may be slowed down due to weakness and/or medications. Also, during this period do not ride a bike, motorcycle or scooter.

You may ride as a passenger in the back seat to avoid colliding against the dashboard in case of sudden braking.

We recommend you only ride for short car trips until you are authorized by your cardiologist. When you do travel long distances stop every hour for a short walk. This way you will improve circulation in your legs and avoid swelling.

### IN SUMMARY:

Do not drive in the first six weeks after your surgery. Sit on the back seat and only for short distances.

In order to preserve your incision we recommend all patients use the postoperative chest belt for at least 40 days after the surgery.



## AT HOME

Resuming your normal activity at home will be a gradual process alternated with periods of rest.

About two weeks after your return home you may resume some simple housework such as laying the table, helping your family members to cook, dust the furniture. Avoid other tasks such as sweeping the floor, hoovering, making beds, loading and unloading your washing machine, gardening. Do not lift anything that weighs more than 10 pounds (5 kg) as this may cause pain in your wound and delay its healing.

In the first six weeks after you return home, you may not resume all your housework tasks or take care of children.

When necessary, ask your GP what tasks you can carry out according to your state of health.

## LIFTING WEIGHTS

Lifting heavy weights (suitcases, children, shopping bags) or carrying out heavy outdoor activities will create tension in your chest muscles too tiring for your body.

We recommend you do not lift weights in the first six weeks after your surgery.

Remember that some apparently mild activities can be tiring, for example opening closed and stuck windows, holding automatic doors open or even hammering a nail in the wall.

## REST



In the initial period of your recovery your body experiences any physical activity as a task. Remember you will need a lot of rest.

In the first two weeks after you return home, make two daily rest intervals of around 45-60 minutes each. You don't need to lay down, you may simply relax on a sofa or armchair. Remember to rest your legs on a stool or a chair when you sit down for a long time to avoid ankle swelling.

Try sleeping every night between 8 and 10 hours and avoid staying up late at night thinking you'll recover the following day. In the first period, placing something underneath your mattress (such as a 3-5 cm pillow or folded towel) where your head and shoulders lie, may improve your breathing while you are sleeping.

In the first six weeks try to sleep lying on your back to avoid tension on the sternum. Always wear your postoperative chest belt to help the healing process.

## WALKING



Walking is an excellent exercise to improve your circulation, muscle tone, strength and general wellbeing.

Initially we recommend you take a daily walk lasting approximately 40 minutes, then gradually start covering longer distances.

During your walk remember to stop and pause several times instead of covering long distances without ever stopping.

In the first weeks, even a slight uphill may stress your body.

Start walking around your neighborhood on level ground, not too fast to avoid getting tired.

You may then gradually change your route and even walk faster, but without getting tired.

Avoid taking your walks during the hottest hours of the day or in winter with rain and colder temperatures.



## STAIRS

Walking up a flight of stairs requires much more energy than walking.

Therefore take it easy and walk up slowly helping yourself with the handrail.

If you feel tired, out of breath or dizzy, sit down and relax.

If your bedroom is upstairs in your house, don't set up your bed in another room but try to organize your daily tasks so that you need to walk up and down the stairs less frequently as possible.



## PHYSICAL ACTIVITY



After 6-8 weeks from your surgery as you recover full capacity of physical exercise, you can return to your daily activities, including any sports you used to practice prior to the intervention.

Remember to stop any time you feel short of breath, or an irregular heart beat, or if you experience vertigo, dizziness or chest pain. In these cases, relax until the symptoms have stopped. If these symptoms don't disappear in 20 minutes or if they get worse or you notice other symptoms, contact your general practitioner, dial 911 or refer to the nearest emergency room.

### Exercise guidelines

If after an exercise your pulse is more than 30 beats higher than the one measured at rest this means you have stressed your body too much. In these cases, you will need to change your next training session to a less tiring one.

### Vital signs

Monitoring your blood pressure and heart rate will help you keep physical activity under control. Make sure you keep an appropriate tool at hand (for example on the nightstand next to your bed). For blood pressure measurement a cuff is generally more reliable than the wrist measurement.

Measure your blood pressure and heart rate at least twice a day (when you wake up, and at night before going to bed), writing down the values on a diary to be shared during the following consults.

A normal blood pressure is between 120 mmHg (systolic) and 80 mmHg (diastolic). A normal heart rate at rest is between 65 and 85 beats per minute (bpm).

Diabetic patients need to regularly measure their blood sugar levels (before every meal and at night before going to bed). Always follow the recommendations of your diabetologist, and regular measure the glycated hemoglobin accordingly.



## Diet

### DIET

After your discharge, doctors will suggest you follow a low-fat diet with no added salt.

A proper diet will reduce the risk of heart attack and having to undergo a surgery again or an angioplasty. You should try to have less than 30 percent of your calories from fat. Keep your weight under control and eat less saturated fat and cholesterol.

According to the American Heart Association (AHA), polyunsaturated fatty acid intake should be 8 to 10 percent of calories. Your intake of polyunsaturated fatty acids will have to be 10 percent of calories. Polyunsaturated fatty acids constitute the rest of the total fat intake, almost 10-15 percent of total calories.

Your cholesterol intake must be lower than 300 mg a day, sodium intake must not exceed 2.4 grams a day.

Avoid adding salt when cooking or table salt. Begin making changes to your diet when your appetite returns normal.

- Weigh yourself at the same time each morning after you urinate but before breakfast.
- Use the same scale every day. •Keep a record of your daily weight.
- Notify your GP if you gain one kg or more at night.

If you have other questions after surgery, please contact your GP.

## NUTRITION



The dietary goal for patients undergoing surgery is to improve their nutritional intake to support the healing process.

As a precaution, you should initially limit your sodium intake.

Sodium (salt) is found in:

- Food (water, fruit, vegetables, meat, etc.)
- Added salt when cooking or table salt.
- Processed products (packaged and prepared foods), such as cold cuts, sausages and mature cheeses.
- In meals eaten out.

In the absence of arterial hypertension your diet will continue with controlled sodium (salt) to a lesser extent until returning to your previous food habits.

You will have to monitor the amount of cholesterol and total fat, specially saturated fat.

## RECOMMENDATIONS FOR A HEALTHY DIET

Eating a wide variety of food is the easiest and safest way to ensure an appropriate intake of all essential nutrients. We suggest you vary and combine different foods as much as possible.

### **Distribute your energy during the day.**

Eat three main meals (breakfast, lunch, dinner) and two snacks with simple food (fruit, a low-fat yogurt, a fruit juice, two rusks).



In a balanced diet, 50-60 percent of calories should come from carbohydrates.

Eat bread, pasta, rice and other grains (preferably whole) regularly, avoiding fatty condiments.

Increase the intake of fresh and dry legumes, limiting the addition of oil and fat that can be replaced with herbs and spices.

Choose wholewheat products.

The most important sources of sugar are sweetened foods and beverages.

- Reduce your consumption of sweet foods and drinks during the day. •Among desserts, prefer traditional Italian baked foods, which contain less fat and sugar and more starch, such as biscuits, plain cakes, etc.

- Cut down on jam, marmalade, honey and custards.
- Avoid products containing sucrose (sugar).

The recommended fat intake for an adult is around 25-30% of his/her total caloric intake.

- Moderate the quantity of fat and oil when dressing and cooking.
- Limit consumption of cooking fats of animal origin (butter, bacon, lard, cream, etc.).

Use raw vegetable fats instead (extra-virgin olive oil).

- Limit the consumption of fried food.

**Proteins: try to go with fish**

Between 12 and 15 percent of total calories must include proteins (meat, fish, eggs, legumes, cheese, cold cuts).

- Eat fish, either fresh or frozen, at least 2-3 times a week.
- Prefer lean meat eliminating the visible fat; eat processed meat (cold cuts or sausages) once a week.
- You can eat a maximum of two eggs a week.
- Prefer skimmed or partially skimmed milk.
- Prefer low-fat cheeses and dairy products (only 2-3 times a week).

**Vegetable fiber intake is crucial**

Eating fibers has positive effects on intestinal regularity and lipid metabolism, reducing cholesterol and triglycerides.

- Eat 5-6 portions of fresh fruit and vegetables every day.

**Drinking**

Wait for your doctor's permission to drink moderate amounts of alcohol.

A moderate consumption is assumed as around one or two 125-ml glasses of wine a day.

This quantity, to be taken during meals, is the maximum limit beyond which negative effects predominate the positive ones.

Prefer low-alcohol drinks (wine, beer), avoiding spirits.



Drinking with moderation means not only drinking small amounts of alcohol, but also avoiding drinks at close range to allow our organism to better assimilate the ethanol.

- Avoid or reduce your alcohol consumption if you are taking medications (including over-the-counter ones) unless your GP explicitly authorizes you to do so.
- Reduce or even eliminate your alcohol intake if you are obese or overweight and if you suffer diabetes, hypertriglyceridemia, etc.
- Drinking tea or coffee can cause tachycardia, arrhythmias and palpitations in some individuals who are advised to limit their consumption, preferring decaffeinated coffee or tea instead.

## Cholesterol & triglycerides



High triglycerides and cholesterol levels in your blood increase the risk of cardiovascular diseases.

Cholesterol in the blood must not exceed 200 mg/dl.

Triglyceride levels can increase due to:

- Excessive amount of fat in the diet.
- Being overweight.
- High calorie intake, especially simple sugars and carbohydrates.
- Alcohol.
- A sedentary lifestyle
- Poor control of blood sugar levels in case of diabetes.

Cholesterol and triglyceride levels in the blood can be lowered reducing:

The total fat amount using the recommended doses of unsaturated fat and reducing the saturated ones.

- Food high in cholesterol. Alcohol consumption.
- Consumption of simple sugars.
- Body weight and/or keeping the optimal weight.
- Increasing intake of fibers (vegetables, wholemeal products, etc.).
- Eliminating fried food.



See below for a table with some recommended and discouraged food.

Remember to always read the labels of processed food.

(Patients in therapy  
with WARFARIN  
can ask for the  
specific form)



## SALT CONTENT IN SOME FOODS

TABELLA 1 – LE FONTI "NASCOSTE" DI SALE

Alimenti	peso dell'unità di misura g	contenuto per unità di misura	
		sodio g	sale g
Pane	50 (1 fetta media)	0,15	0,4
<i>Pane sciapo</i>	50 (1 fetta media)	tracce*	tracce
Biscotti dolci	20 (2-4 biscotti)	0,04	0,1
Cornetto semplice	40 (1 unità)	0,16*	0,4
Merendina tipo pan di spagna	35 (1 unità)	0,12*	0,3
Cereali da prima colazione	30 (4 cucchiaini da tavola)	0,33*	0,8

TABELLA 2 – ALIMENTI CONSERVATI E TRASFORMATI RICCHI DI SALE

Alimenti	peso dell'unità di misura g	contenuto per unità di misura	
		sodio g	sale g
Olive da tavola conservate	35 (5 olive)	0,46*	1,1
Verdure sott'aceto	60 (3 cucchiaini da tavola)	0,48*	1,2
Prosciutto crudo ( <i>dolce</i> )	50 (3-4 fette medie)	1,29	3,2
Prosciutto cotto	50 (3-4 fette medie)	0,36	0,9
Salame Milano	50 (8-10 fette medie)	0,75	1,9
Mozzarella di mucca	100 (porzione)	0,20	0,5
Provolone	50 (porzione)	0,34	0,9
Formaggino	22 (1 unità)	0,22*	0,6
Parmigiano grattugiato	10 (1 cucchiaino da tavola)	0,06	0,2
Tonno sott'olio (sgocciolato)	52 (1 scatoletta)	0,16	0,4
<i>Tonno sott'olio a bassa percentuale di sale (sgocciolato)</i>	52 (1 scatoletta)	0,05*	0,1
Patatine in sacchetto	25 (una confezione individuale)	0,27	0,7
<i>Patatine in sacchetto a tenore ridotto di sale</i>	25 (una confezione individuale)	0,09*	0,2

## Medications

After cardiac surgery you will almost certainly be prescribed a drug therapy to help the healing process.

You may continue taking the same medication you were taking before the surgery for an indefinite period of time.

The drug therapy will help you:

- Optimize your heart's pumping function.
- Reduce your heart workload.
- Remove excess fluids.
- Reintegrate electrolytes.
- Decrease platelet aggregation or blood clotting.
- Prevent gastritis or stress ulcer.
- For diabetic patients: maintain adequate glycometabolic compensation.

Before taking your therapy we recommend you always measure your vital signs (blood pressure, heart rate, blood sugar in case of diabetes).

Patients on diuretics should regularly control the main blood electrolytes (sodium and potassium).

Some medications may be prescribed "if necessary" to mitigate pain or to better sleep at night. You will be able to independently take these medications complying with the recommended maximum daily doses.

Remember to keep at home a good supply of medications, so that you will never run out of them.

- Active principle.
- Dosage.
- Posology (how many times a day and at what time).
- Route of administration.
- Side effects.

Some commonly used medications:

**ACE INHIBITORS**

These drugs dilate your blood vessels, reducing blood pressure and heart workload. Also, they help heart kinesis slowing down the course of your disease.

**BETA BLOCKERS**

These medications help your heart work better reducing your blood pressure and heart rate.

**VASODILATORS**

These medications help vessel dilation reducing blood pressure and heart function.

**DIURETICS**

These medications help lowering salt levels in your body and removing excess fluid that causes breathing difficulties and swellings.

**PLATELET AGGREGATION INHIBITORS**

These drugs inhibit platelet aggregation and protect heart coronary arteries and aortocoronary bypasses.

**BLOOD THINNERS**

The main function of blood thinners is smoothening blood preventing the formation of clots (thrombi). The dosage of these medications varies according to the therapeutic indication (reason of prescription) and your coagulative function. For this reason, in some cases you will have to periodically perform the coagulation test (INR), consulting your GP or cardiologist to set the proper drug dose. In your discharge letter you will find all information for a proper management of the oral anticoagulant therapy, personalized according to your clinical situation.

**STATINS**

These lower fat levels in the blood and protect your cardiovascular system.

**ANTIARRHYTHMICS**

These drugs treat and/or prevent abnormal heart rhythms.

**GASTROPROTECTIVE DRUGS**

These prevent stomach lining from damage due to the simultaneous intake of different drugs, especially platelet aggregation inhibitors and blood thinners.

## Sexual life after surgery

After surgery you will spend an intense period both from a physical and emotional point of view.

Stress related to surgery can affect your sexual life.

In the first weeks, stay close to your partner, hold hands, cuddling and caressing yourselves: this requires little energy and are an antidote to stress and depression.

Many couples have found this allows them to slowly and safely resume a complete sexual life about 1-3 weeks after returning home.

Due to the sternal wound, you will have to avoid positions that may cause discomfort or pain to the sternum. As you go ahead with the rehabilitation program and increase resistance to efforts, the moment when you will be ready for a full sexual recovery will approach.

The effort required for full sexual intercourse is a steep walk or two flights of stairs.

The heart rate rarely exceeds 120 beats per minute and even pressure increases in a moderate and temporary way.

After surgery you will notice an increasing heart rate, breathing and muscle tension. These symptoms are normal and should not cause concern.

Two psychological factors that may reduce interest and sexual ability are fear of performance and depression. This is normal and should disappear within three months.

However, if your depression persists after 3-6 months, you may require a psychological support.

### **Some medications may affect sexual stimulus or performance**

Consult your physician if this occurs. Often you just need to change your medication or dosage to effectively solve the problem.

Never interrupt a drug therapy without the approval of your physician and try to keep an open dialogue with your partner.

Always consult your cardiologist before taking any medications to improve your sexual performance.



Some recommendations to resume a satisfying sexual life:

Start the rehabilitation process as soon as possible.

Be understanding of your partner's feelings: after heart surgery the emotional sphere lives in a precarious balance with quick mood swings. Try to concentrate on daily events and take everything with a sense of humor, that is always of great help.

•Adapt sexual expectations to the situation: it's normal that fragile physical and emotional conditions cause some anxiety in the resumption of sexual relations.

Relax and rest before the sexual relationship.

Choose a position that does not compress breathing or require a prolonged muscle effort.

Have sex in a familiar place, at a pleasant temperature and with a partner who you know well.

Wait at least one hour after meals before having sex.

Consult the physician in case of chest pain, angina, shortness of breath, rapid heart rate or extreme fatigue as concerns sexual relationship.

## Your general practitioner



The first week after returning home contact your GP and cardiologist as soon as possible, showing them your discharge letter.

This contains all necessary information to resume your life outside the hospital and any future appointments at ISMETT.

If everything is normal you may refer to your GP or cardiologist for follow-up, with a frequency you will agree with them.

Should the symptoms you had before surgery reappear, immediately consult your cardiologist or go to the nearest hospital: our colleagues will contact us to share the clinical case and program.



For further information contact:

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11:00	12:00		12:00	12:00
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