

Melanoma Surgery

Wide Local Excision and Sentinel Lymph Node Biopsy (SLNB)

**Information for individuals
with melanoma and their families**

To our patients and their families:

We encourage you to use this book as a guide to learning about melanoma.

You are the most important part of your team and can expect high quality, evidence-based treatment and compassionate care from your cancer specialists.

Together we will provide you with information and support, so that you can make informed decisions and take active part in your care. Please feel free to talk with us about your health and any concerns that you may have. We welcome your questions at any time.

Table of Contents

Section One: Surgery for melanoma	5
Types of surgery	5
Section Two: Getting ready for surgery	9
Section Three: After surgery	11
Follow up care.....	11
Incisions	11
Wound care.....	12
Lymphedema	14
Exercises after lymph node surgery	15
When to call the surgeon	23
When you should see the surgeon again	23
Coping after surgery	23
Section Four: Your information	24
My biopsy results	24
My health care team members.....	25
Notes and questions	26
Resources	27

Timeline for Patients Having a Wide Local Excision and Sentinel Lymph Node Biopsy

2 to 4 weeks

after you sign consent for surgery

1 to 2 weeks before your surgery date

It is mandatory to attend a pre-op clinic appointment to review medications and consult with the anesthesiologist.

Your surgeon's office will call you with:

1. Your surgery date
2. Your Pre-anesthesia Assessment appointment date and time (mandatory visit)
3. The date and time of any other appointments you need

Your surgeon's office phone number:

Pre-anesthesia Assessment:

Date: _____ Time: _____

Check-in location for your assessment:

St. Joseph's Healthcare Pre-op Clinic –
100 West 5th Street, Hamilton, (905) 522-1155

HHS West End Clinic – 690 Main Street
West, Hamilton, (905) 521-2100

The day before your surgery or
same day as your surgery

The day of your surgery



Sentinel Node Injection Appointment

Date: _____

Time: _____

Check-in location for your nuclear medicine injection:

- Hamilton General Hospital (HGH)
- Juravinski Hospital (JH)
- St. Joseph's Hospital (SJH)
- Check in to Same Day Surgery and a nurse will arrange transport for an injection

Surgery

Date: _____

Time: _____

Check-in location for your surgical procedure is:

- Hamilton General Hospital (HGH)
- Juravinski Hospital (JH)
- St. Joseph's Hospital (SJH)

One week after surgery if
you had a skin graft

Three weeks after surgery if
you did not have a skin graft

***Pathology results will not be
available at this appointment**

Surgeon: _____

Date: _____

Time: _____

- Hamilton General Hospital (HGH)
- Juravinski Cancer Centre (JCC)
- St. Joseph's Hospital (SJH)
Surgical Outpatient Clinic
Fontebonne Building Level 1

***Pathology results may be
reviewed at this appointment**

Surgeon: _____

Date: _____

Time: _____

- Hamilton General Hospital (HGH)
- Juravinski Cancer Centre (JCC)
- St. Joseph's Hospital (SJH)
Surgical Outpatient Clinic
Fontebonne Building Level 1

Survivorship Planning and Follow-up



Follow-up surgeon appointment

Discharge to family doctor

Referral to radiation oncologist

Referral to medical oncologist

Discharge or referral to dermatologist

Surveillance investigations

Referral to lymphedema class

Section One: Surgery for melanoma

Types of surgery

There are different methods of surgery for the various types of cancer. Each type of cancer has its own way of growing or spreading which helps your health care team determine which type of surgery is best for you.

To surgically remove cancer from the body, a surgeon must remove not only the original tumour but also any cancer cells which may have travelled in the body. This may include nearby lymph nodes.

Cancer cells are very small, and typically not visible until they have grown to a few million cells even under the best imaging. This means, even after the surgery, there is a small chance that cancer cells are left behind. There is always a small risk that these cells may grow again.

There are different surgical options depending on the depth and features of the melanoma, your overall health, and your preference. Typically, you will be given options for a surgery in combination with a lymph node surgery.

Types of surgery

Skin surgery (at the site where the original biopsy was completed):

- Wide Local Excision (WLE)

A wide local excision is a surgery that removes a 1 to 2-centimeter area of skin around the melanoma, taking the excision down to the depth just overlying the muscle (fascia). No muscle is removed with surgery.

If your melanoma is located underneath the fingernail or toenail, a partial amputation is usually required for this margin.

The purpose of this procedure is to lower the chance of the skin cancer coming back in that spot where it was first found.

Stitches will be used to put the skin back together after the melanoma is removed. Some stitches are dissolving (do not need to be removed), others are not dissolving and will be taken out by your surgeon at your after-surgery appointment, approximately 3 weeks after the surgery.

Your wide local excision surgery may also include other procedures such as a sentinel node biopsy and/or a skin flap or skin graft.

Possible risks with this surgery include:

- infection
- bleeding
- pain/numbness at the incision
- changes in the skin appearance/scar
- seroma (fluid collection under the incision)
- dehiscence (incision can open up)
- may need further surgery to ensure all of the cancer cells are removed
- recurrence of the melanoma (it can come back)

Reconstructive surgery:

Depending on the location of your melanoma and the size of the area of skin that needs to be removed, you may require some reconstructive surgery that is done at the time of your wide local excision and sentinel lymph node biopsy.

The simplest type of reconstruction requires using local advancement flaps – this involves using the local skin and subcutaneous tissue in the area that is loosened up from the underlying tissue to cover the wide local excision skin defect. The advancement flaps are then closed with stitches.

Some more advanced reconstructive options include rotational flaps and other ways in which to close the skin defect. In some cases, a skin graft – involving taking skin from another area of your body and transplanting it to close the wide local excision defect – is required. This can be a split or partial thickness skin graft (superficial layer of skin) or a full thickness skin graft (thicker layer of skin).

Before you procedure, your surgeon will discuss with you which reconstructive surgery you may require for your melanoma surgery.

Lymph node surgery:

- Sentinel lymph node biopsy (SLNB)

Lymph nodes act as filters in the body's circulatory system. Sentinel lymph nodes are the first lymph nodes that drain the area where the melanoma was found. For example, if the melanoma was on the arm, the nearest or first lymph nodes would be in the axilla (armpit) of that same arm. If the melanoma was on the leg, the first lymph nodes would be in the groin. For melanomas on the body (trunk or chest), the nearest lymph nodes can be in the axilla, groin or neck, and cannot be easily predicted prior to surgery.

To identify the exact location of the sentinel nodes for your melanoma that need to be removed and tested, the nuclear medicine doctors inject a radioactive dye around the melanoma or the scar if the melanoma was removed, and an x-ray called a lymphoscintigram is taken. As part of your procedure, your surgeon will remove the identified 1 to 3 sentinel lymph nodes from where they are shown on the lymphoscintigram.

A blue dye may also be injected around the melanoma-while you are asleep in the operating room to help your surgeon find your lymph nodes.

The removed lymph nodes will be sent for analysis by a pathologist. This analysis will take 2-3 weeks to complete, and will not be known on the day of your surgery. This information helps the doctors decide what other treatments you will need, in addition to surgery.

Possible risks with this surgery include:

- infection
- bleeding
- numbness/tingling at the incision
- scar formation
- dehiscence (incision can open up)
- 2% to 7% chance of lymphedema (swollen arm or leg)
- allergic reaction to dye

- changes in skin colour from blue dye around wide excision (may take up to weeks to resolve)
- change in urine colour from blue dye injection (resolves in 24-48 hrs)
- changes to skin tone colour, e.g. grey/blue (resolves in 24-48 hrs)

Section Two: Getting ready for surgery

Jewelry

- Take off all jewelry (including wedding bands) and all body piercings before you come to the hospital. If you cannot remove rings, they will be cut off.

Make-up

- Take off all make-up and remove all nail polish from your fingers and toes, as your oxygen level during surgery will be measured through your fingernails or toenails.
- **DO NOT** use perfume, cologne, scented creams, body lotion, deodorant or hair products on the day of your surgery.

Bathing

- You may shower and wash your hair on the morning of your surgery.
- **DO NOT** shave the area where you will have surgery such as your armpit.
- **DO NOT** use body lotion, hair products, talcum powder, baby powder or deodorant on the day of your surgery.

Food and drink

- **DO NOT** eat any food after 12 midnight on the night before your surgery.
- **DO NOT** drink milk, orange juice, any juice with pulp, or alcohol after midnight.
- Up to 2 hours before surgery, you may drink up to 300 milliliters/10 ounces of clear fluids such as water, clear juices (apple juice, cranberry juice, or Gatorade) or coffee/tea **WITHOUT** milk, cream or whitener.

Medications

- **DO NOT** take any medication with acetylsalicylic acid or ASA (Aspirin); or blood thinners (Warfarin, Coumadin, Apixaban, Dabigatran, Rivaroxaban, etc) 5 to 7 days before your surgery.
- **DO NOT** take any herbal remedies or homeopathic medicines (prescribed or over-the-counter) for 14 days before your surgery. They can cause bleeding problems during your surgery.

Day of surgery:

Please arrive as instructed. The 2 hours before your surgery are required to prepare you for your procedure. Arriving late may result in your surgery being cancelled.

Section Three: After surgery

Follow up care

Incisions

The incisions may be swollen, bruised and painful. The incision may feel lumpy like a ridge – this is normal. You will have sutures (stitches) that are covered by bandages or tape. Take the pain medication that your surgeon prescribed, if you require it.

In addition to medication, apply an ice pack to your surgical site(s) – 10 minutes on and 10 minutes off. Repeat as needed for comfort. Avoid hot or warm packs as the surgery may have changed some nerves so your skin could burn easily.

Pain

It is not normal to have severe pain. Each day after your surgery your pain will lessen and you will require less pain medication. You will likely have had local anesthetic (numbing medication) injected by your surgeon at the surgical site(s) to decrease your pain level. This medication will wear off within a few hours after your surgery. At this time you will need to consider taking the pain tablets you have been prescribed.

To manage your pain we suggest that you:

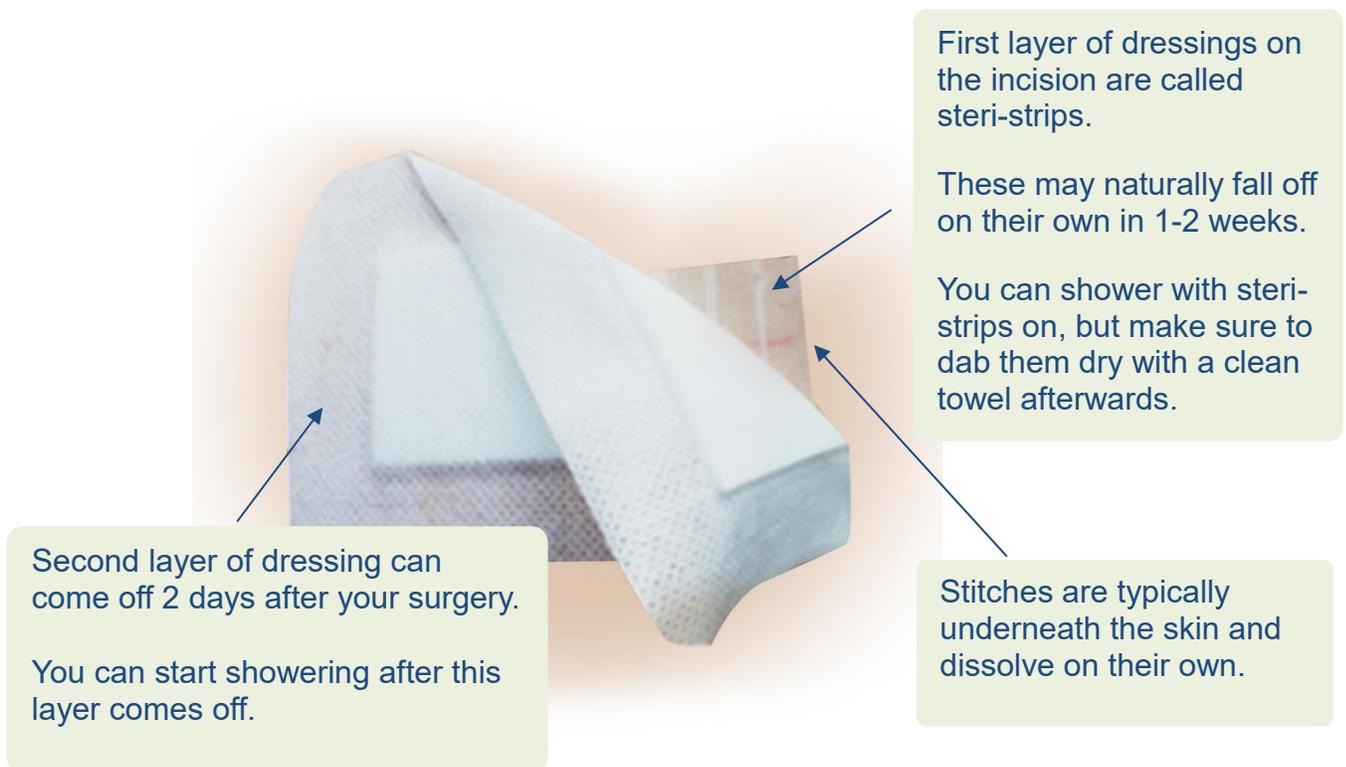
- Take your prescribed pain medication as recommended by your surgeon
- **Do not** wait until the pain is severe before taking the pain medication
- Take your pain medication 30 minutes before planned exercise and at bedtime
- Slightly elevate the arm or leg (corresponding to where your wide excision and sentinel lymph node biopsy site is located) to help decrease tight surgical areas around the wound and help with circulation and swelling.



Do not drive while taking narcotics

Wound care

Before you leave the hospital, you will be told how to take care of your incision site(s). You may have two layers of dressing on your incision. The white inner layers directly on the skin over your incision are called steri-strips. . The second (outer) layer of dressing is a large bandage. Take the second layer (large bandage) off 2 days after surgery.



- You may have non-dissolving stitches in your incision;-these are typically black or blue. A bandage or gauze type dressing is placed over top of the stitches. This dressing can be removed 2 days after your surgery.

- Two (2) days after your surgery, remove the outer dressing, leaving the steri-strips on. You may then shower. After showering, pat the steri-strips dry. **Do not** apply creams, powders, ointments, deodorants or perfumes, until your follow up with the surgeon.
- Do not take herbal remedies by mouth or use any topical ointments/creams on your incision without speaking with your surgeon.
- Avoid tub baths, hot tubs and pools until your wound(s) has/have healed fully or until cleared by your surgeon.
- **It is normal to have some swelling and bruising at/around the site(s).**
- **Temporary swelling in the extremity is fairly common.**
Elevate your arm or leg above your heart for 45 minutes three (3) times a day to help promote circulation.



Do not drive until you are pain free and you get normal range of motion back to your arm or leg.

Lymphedema

Swelling of the arm(s) and/or leg(s) is caused by the removal of lymph nodes and inability of the lymphatic system to drain lymph fluid effectively. You may have numbness, discomfort, tightness and sometimes infection.

Prevention of lymphedema

- Exercise regularly but speak with your doctor first before starting/resuming an exercise program like weights.
- Gradually increase activity of affected arm or leg.
- Maintain ideal body weight; overweight patients are more likely to develop lymphedema.
- Wear loose fitting clothing and jewelry.
- Do not carry heavy bags or purses on the affected side.
- Avoid skin injury on the side of the surgery. Wear protective equipment such as gloves while gardening, and slippers/shoes when walking outdoors or on the beach.
- Wear sunscreen at all times to avoid sunburns and skin breakdown.
- Avoid lying on the affected side for long periods of time.

Exercises after lymph node surgery

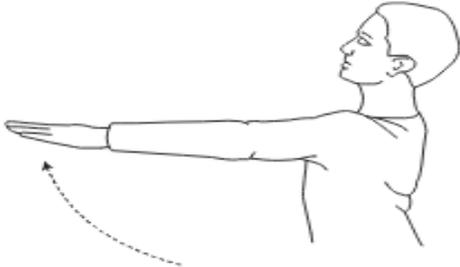
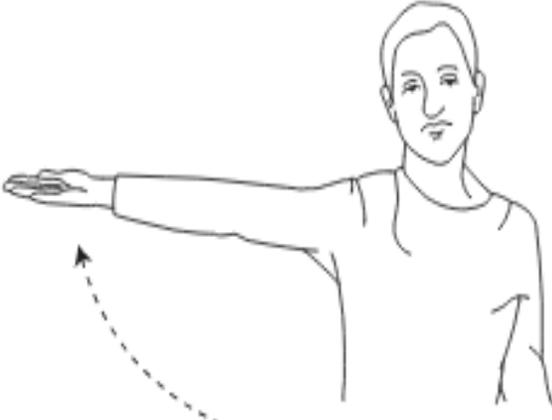
Lymph node surgery may limit the strength and movement of your arm, shoulder, or leg. You may feel stiff and weak in this area and the skin may feel tight, but exercises can be helpful. Your balance may also be affected, causing stiffness in your head and neck.

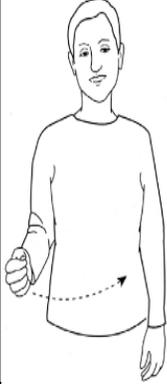
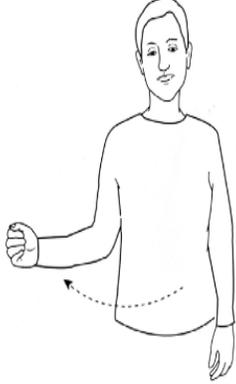
All exercises should be done slowly and with control. Pain is not the goal, only light stretching.

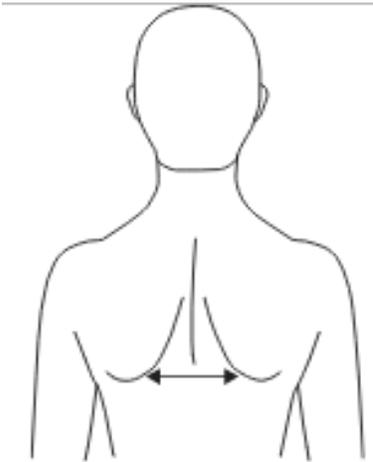
Doing these exercises after surgery:

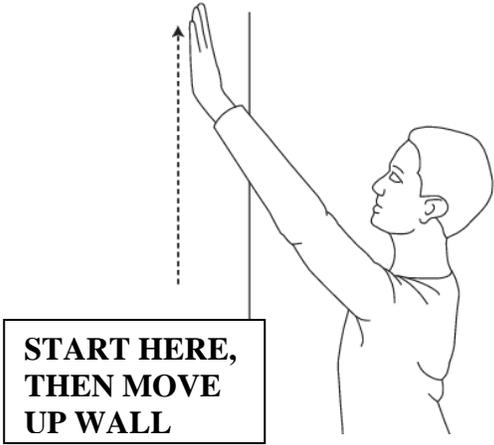
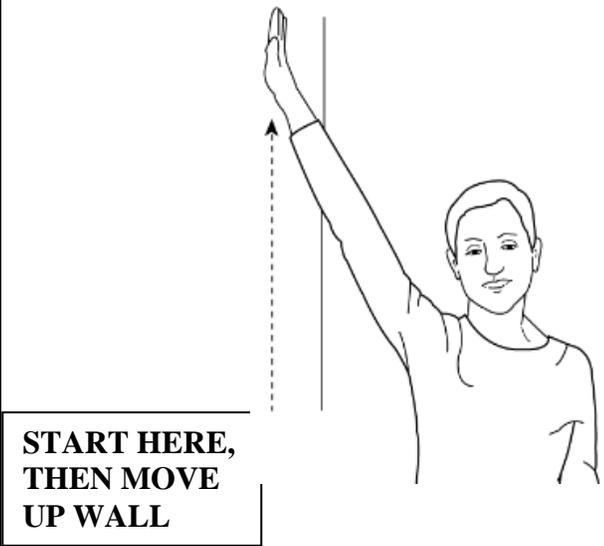
- will help bring back the movement and strength of your arm and shoulder
- decrease the stiffness and increase the movement of your head and neck
- may avoid, control or decrease pain
- may avoid, control or decrease swelling
- will make it easier for you to prepare for radiation therapy, if needed

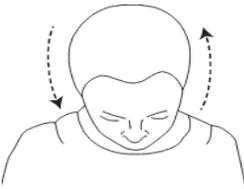
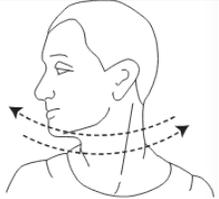
Exercises following Lymph Node Surgery: Your surgeon will check the boxes next to the exercises recommended for you.

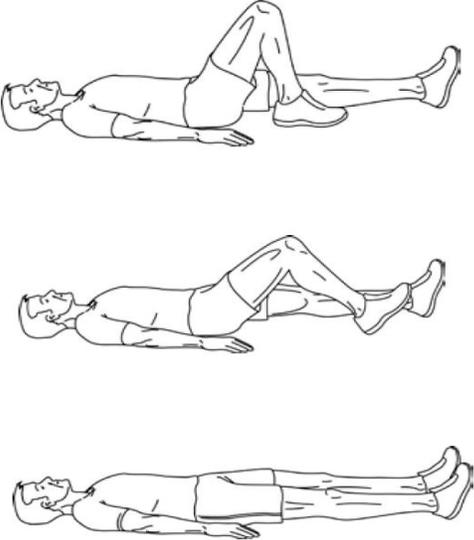
To Do:	Exercise Name	Description	
<input data-bbox="212 457 306 541" type="checkbox"/>	Shoulder Flexion	<ul style="list-style-type: none"> - Lift arm of the affected side(s) straight up in front of you. Stop at 90°. There should be no pain. - Do up to 10 times - Do the exercise 2 to 3 times a day - Increase past 90° slowly each day 	
<input data-bbox="212 951 306 1035" type="checkbox"/>	Shoulder Abduction	<ul style="list-style-type: none"> - Lift arm of the affected side(s) straight out to the side. Stop at 90°. There should be no pain. - Do up to 10 times - Do the exercise 2 to 3 times a day 	

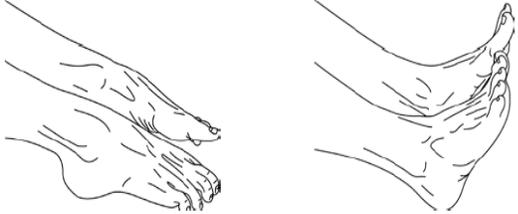
	<p>Shoulder Rotation</p>	<ul style="list-style-type: none"> - Do up to 10 times - Do the exercise 3 times a day <p>A) Start with your elbow of the affected side(s) beside your body, your arm bent at 90° so that your forearm is level with the ground</p> <p>B) Slowly bring your hand in towards your belly, keeping your elbow tucked by your side</p> <p>C) With your elbow tucked by your side, move your hand away from your body as far as you can comfortably go. Stop if you feel pain.</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="943 247 1110 743"> <p>A</p>  </div> <div data-bbox="1130 247 1276 743"> <p>B</p>  </div> <div data-bbox="1300 247 1536 743"> <p>C</p>  </div> </div>
	<p>Hand Pump and Squeeze</p>	<ul style="list-style-type: none"> - Make and release a fist or hold a soft ball/sock in your hand of the affected side(s) - Squeeze and relax - Do up to 20 times - Do the exercise 2 to 3 times a day 	

<input type="checkbox"/>	Shoulder blade squeezes	<ul style="list-style-type: none">- While standing or sitting upright, pull your shoulders back and down with your arms at your sides- Squeeze your shoulder blades together, hold for 5 seconds- Do this 15 to 20 times- Do this exercise 3 times a day	
<input type="checkbox"/>	Chest stretch	<ul style="list-style-type: none">- Lie at the edge of your bed- Raise your arm of the affected side(s) up straight in front of you towards the ceiling in line with your shoulder- Carefully let it fall out to the side (over the side of the bed, away from your body) until you feel a stretch between your breast and shoulder- Hold for 30 seconds- Do up to 3 to 5 times, 2 times a day	

	<p>Wall climbing (front)</p>	<ul style="list-style-type: none"> - Place your fingertips of the affected side(s) on the wall about waist level - Slowly slide your fingertips up the wall as far as you can - You can place a towel between your fingertips and the wall so that they slide up the wall easily - Climb the wall 5 times, holding for 15 to 30 seconds at the top - Do this 3 times a day 	
	<p>Wall climbing (side)</p>	<ul style="list-style-type: none"> - Stand beside the wall just less than your arm's length away - Place your fingertips of the affected side(s) on the wall about waist level - Slowly start to walk up the wall as far as you can - You can place a towel between your fingertips and the wall so that it slides up the wall easily - Climb the wall 5 times, holding for 15 to 30 seconds at the top - Do this 3 times a day - Do this exercise until you can stand right beside the wall 	

	Neck Rotation	<p>Sitting or standing upright:</p> <p>A) Bend your neck forward, chin to chest. Bring your head back to neutral position.</p> <p>B) Turn head to one side then to the other side.</p> <p>C) Look straight ahead. Bend your ear toward your shoulder.</p> <ul style="list-style-type: none">- Do each exercise up to 10 times- Do the exercises 3 times / day	<p>A</p>  <p>B</p>  <p>C</p> 
---	----------------------	---	--

To Do:	Exercise Name	Description	
<input data-bbox="212 321 310 411" type="checkbox"/>	Heel Slide	<ul style="list-style-type: none"> - Lie down on your back - Slide the heel of your foot as close to your buttock as possible, then slowly slide your foot back down - Slide other leg in same manner - Repeat 5 times with both legs 	
<input data-bbox="212 907 310 997" type="checkbox"/>	Knee Hugs	<ul style="list-style-type: none"> - Lie down on your back - Bend and hug your knee close to your chest - Hold for 3 seconds - Bring foot back to floor - Do the other knee in the same manner - Repeat 5 times with both legs 	

	Knee Bends	<ul style="list-style-type: none">- Sit in a chair- Straighten leg so it is parallel to the ground- Pull your toes up, tighten thigh muscles and straighten knee- Make 5 large circles with foot clockwise- Make 5 large circles with foot counterclockwise- Repeat 5 times with each leg	
	Ankle Pumps	<ul style="list-style-type: none">- Bending the ankles, point toes away from your body- Bending the ankles, point toes up toward the ceiling- Repeat 10 times	

When to call the surgeon

Call your surgeon if you:

- notice a fast increase in swelling or bruising the first 24 hours after surgery
- have a temperature 38°C (100°F) or higher
- notice pus or drainage from the incision
- notice your pain increases or is not relieved by medication
- notice increased swelling, warmth or redness around your incision(s)

When you should see the surgeon again

You will see the surgeon about 3 weeks after surgery. Before you leave the hospital you will be given the date and time of your appointment. If you are not given the actual date and time, you will be instructed to call your surgeon's office for the appointment.

At this visit, your incision will be checked and the stitches may be removed.

Coping after surgery

A diagnosis of melanoma can be difficult. Coping with the treatments, side effects, managing your emotions and adjusting to the changes in body image can be very overwhelming.

These feelings are normal. It is important that you look for emotional support from a family member, close friend or support person. Give yourself time to adjust to your new body image.

You may want to speak with a social worker or dietician at the cancer centre for help.

Resources

For more information please see the JCC Patient and Family Handbook available in clinic or by accessing the link below:

<https://www.hamiltonhealthsciences.ca/wp-content/uploads/2020/03/Welcome-to-the-Juravinski-Cancer-Centre-1.pdf>

Community Resource	Phone Number	Website
Cancer and Work		https://www.cancerandwork.ca/ 
Canadian Cancer Society Cancer Information Service – An information specialist can answer your questions by email or phone.	1-888-939-3333 TTY 1-866-786-3934 Email: info@cis.cancer.ca	www.cancer.ca 
Cancer Care Ontario	416-971-9800	www.cancercare.on.ca/ 
Canadian Partnership Against Cancer	1-877-360-1665	https://www.partnershipagainstcancer.ca 
Canwell Program Hamilton YMCA (Cancer Exercise)	905-667-1515	https://www.ymcahbb.ca/Programs/LiveWell/CanWell-LiveWell-(1)?location=5f8d05a1-6a9e-4f60-b826-9930d667435d 

Melanoma Surgery

MacWarriors (Cancer Exercise)	905-525-9140 ext. 27541	www.pace.mcmaster.ca 
Melanoma Network of Canada	1-877-560-8035	www.melanomanetwork.ca 
Telehealth Ontario (Smoking Cessation)	1-866-797-0000 TTY 1-866-797-0007	www.smokershelpline.ca 
Wellwood	905-667-8870	www.wellwood.on.ca 
Wellspring	1-888-707-1277	www.wellspring.ca 