

Scar Management After a Burn



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Table of Contents

- Introduction** 3
 - Phone Numbers 3
- A. The Skin** 4
- B. How are Burns Classified** 5
- C. Skin Changes After Burn Injury** 6
 - What will the skin look like? 6
 - What kind of moisturizers can be used? 6
 - How often should moisturizers be applied? 6
 - Can I take a bath? 7
 - Why do I get blisters? 7
 - How to care for the blisters/open areas? 7
 - What do I do to reduce the itchiness? 8
- D. Hypertrophic Scar** 9
- E. Pressure Garments** 12
- F. Clear Face Masks** 15
- G. Exercising** 16
- H. Exposure To Sun** 16
- I. Camouflage Cosmetics** 17
- J. A Final Word** 17
- Notes** 19

Introduction

This pamphlet will help to explain the nature of burns and the use of compression therapy to assist you to recover as quickly and as fully as possible.

This pamphlet has been prepared for the specific intended patient population. We welcome any questions or comments you may have after reading this pamphlet.

If you have any concerns that are not addressed in this booklet, please seek clarification from a member of the Burn Team such as your physician or occupational therapist.

Phone Numbers

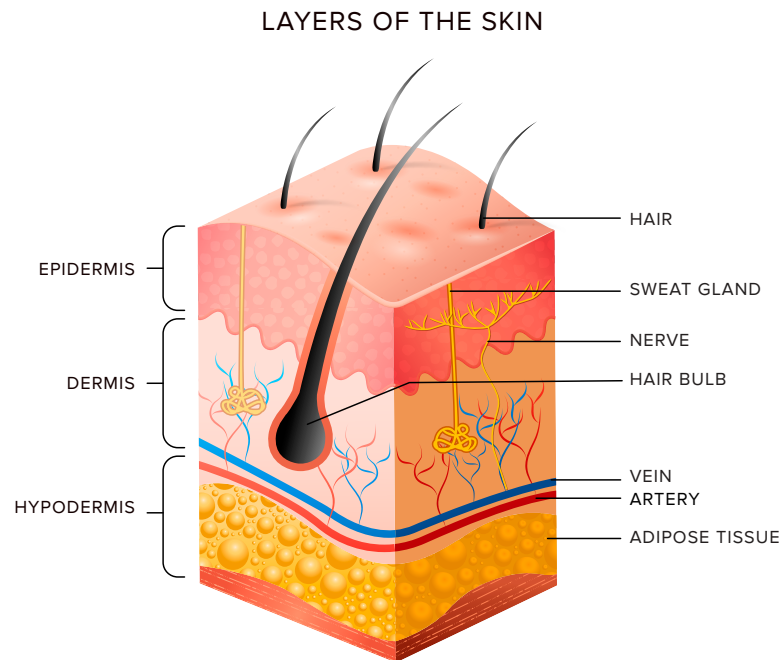
Department	Name	Phone Number
Outpatient Clinic	Front Desk	604-875-4095
Occupational Therapist		

The Skin

What is the skin and what does it do?

The skin is the largest body organ and it is important as it:

- Protects the body from infection by acting as a barrier against bacteria
- Helps to prevent loss of body fluids
- Regulates the body's temperature through sweat produced by sweat glands
- Sends pain and temperature information to our brain through nerve endings in our skin



How are Burns Classified?

Superficial Burns (1st degree burns)

- Involve only the outer layers (epidermis) of the skin
- Appear red – similar to a sunburn
- Should heal in a few days with no scarring

Partial Thickness Burns (2nd degree burns)

- Can be superficial, moderate, or deep
- May take more than 21 days (3 weeks) to heal
- May need skin grafting
- May scar

Full Thickness Burns (3rd degree burns)

- Involve all layers of the skin (epidermis and dermis)
- May appear dry and leathery – often there is no feeling to the skin
- Requires skin grafting
- Likely to scar

Skin Changes after Burn Injury

What will the skin look like?

The newly healed skin is very sensitive and is easily irritated. The oil glands in your skin may have been damaged causing the skin to look dry and scaly. Some of the oil glands may grow back, but until they do, it is important to use lotions/ moisturizers to decrease skin dryness.

You may notice colour changes in your newly healed skin. The skin may look darker or lighter than your non-burned skin. This colour change is normal and should fade with time with proper management. You may also experience a tingling sensation in the burned area. This tingling happens because some of the nerves in your skin were damaged. Like with your oil glands, the nerves may grow back over time.

What kind of moisturizers can be used?

Any non-greasy moisturizers without perfume or alcohol will be fine. Perfumed lotions tend to irritate the skin. Vitamin E and oil based lotions can clog the pores in the skin and ruin the elastics in certain pressure garments (see page 10).

Some examples of acceptable moisturizers are: Vaseline Intensive Care, Nivea Professional Care, Eucerin lotion, Glaxal Base cream, Aveeno and Neutrogena



How often should moisturizers be applied?

They should be applied 2 to 4 times a day, to keep the skin soft and smooth. Avoid leaving the skin dry and flaky as this makes the skin more fragile and prone to cracking and blistering.

Can I take a bath?

Absolutely. Just make sure you moisturize your skin afterwards. If you have a leg burn or a donor site on your thigh, it is helpful to be seated when taking a bath or shower.

Ask your Occupational Therapist (OT) if you need equipment to allow you to get in and out of the tub more easily.

Why do I get blisters?

The newly healed skin is very fragile. Blisters can be caused by friction or excessive pressure. This problem will resolve as the skin gets tougher.

In the meantime, protect your skin by avoiding injury and wearing proper fitting clothes and shoes that do not cause irritation. Wear gloves, if working with tools to protect your hands.



How to care for the blisters/open areas

It is best to leave the blisters intact. If they become open, cleanse the open areas daily using soap and water.

You may cover the area with a protective dressing (e.g. Mepitel or Jelonet while still wearing your pressure garments).

If the blisters are larger than a dime size, consult your doctor or therapist. It may be necessary to discontinue wearing the pressure garments for a short time.

What can I do to reduce itchiness?

Itching is a common problem with healed and healing skin. To help decrease and relieve itching, you may try these suggestions:

- Moisturize the healed skin to prevent dryness
- Take cool showers and baths
- Keep fingernails short and clean to avoid scratching the skin
- Resume interests and hobbies to distract your mind from the itching
- Continue with relaxation/distraction techniques used in hospital
- Keep the pressure garments on and keep them clean.

If itching is not relieved by these measures, contact your doctor; some medication may help.



Hypertrophic Scar

What is a hypertrophic scar?

Hypertrophic scarring happens when the body produces more collagen fibres than are needed to help heal the burn wound. Collagen is the main structural protein found in connective tissue.

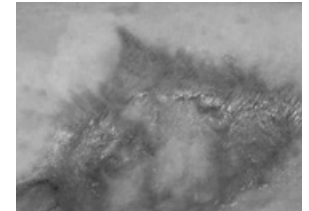
Will my skin scar?

The amount of scarring that will develop will vary with individuals. The factors affecting scarring include how deep the original burn is, how long the wound takes to heal, the individual's genetic makeup and age.

Generally, a burn wound that takes less than 2 weeks to heal will not likely develop a hypertrophic scar.

What will the hypertrophic scar look like?

The scar may look pink/red/purple, thick and is often raised above the surface of the skin. The scar may feel firm, may be more sensitive to touch and could be itchy. The pink/red/purple colour of the scar comes from the thinness of the newly healed skin as well as the extra blood flow going to the healing area. The raised scar comes from the extra growth of collagen fibres underneath the burned skin.



How long will the scar keep growing?

This will be different for everyone. The scar will probably be “most active” the first 6 months after the burn wounds have healed and will gradually get better as it matures. This could take up to 2 years.

What can be done to minimize scar formation?



During the time when the scar is actively growing, it can be minimized by applying pressure garments over the area. Pressure garments must be worn 24 hours a day and 7 days a week, removing them only to bathe

(after bathing, moisturize and wait at least 30 minutes before re-donning your garment). Wearing pressure garments will result in a softer and flatter scar. You must wear your pressure garments and do your exercises as instructed.

What kind of pressure devices are available?

There are many kinds of pressure devices that can be used to control hypertrophic scarring. *Tensor* bandages, *Tubigrip* or *Coban* wrap are used to provide lighter pressure when skin is newly healed. When the skin is less fragile and your weight is stabilized, custom garments may be measured as required. Clear plastic face masks and neck collars can also be used. The choice will depend on the body parts involved and the burn depth.

What are contractures?

Contractures are permanent shortening of muscle, tendons, or scar tissue causing deformity or lack of full range of motion.

How do contractures form?

Contractures usually occur over joints and are due to a shortening and thickening of the scar tissues, which become an inflexible band and limits joint movements

Contractures often result in a decreased ability to straighten a joint (e.g. elbow, neck or knee), but may also limit bending of joints, especially in the fingers. Contractures may impact your ability to care for yourself, so it is important to try and prevent them as much as is possible. Sometimes, contractures require surgery to correct.

How can contractures be controlled?

There are many ways to help prevent contractures. Exercises, stretching, positioning, and splinting techniques can help prevent contractures; contractures can be stretched to the point of blanching (turning white). Your OT may make a splint to help keep your body in a stretched position. Adjustments will be made as your movement improves. It is important that you follow the wearing instructions given by your therapist, and that you let z irritation. The exercises given by the physiotherapist (PT) and OT should be done thoroughly, many times each day. It is better to do shorter, more frequent sessions than one long session. If the scars feel very tight when stretched, moisturize your scars before performing the exercises.

Your daily activities such as dressing, grooming, bathing, and eating may take longer than you are used to, but doing these types of activities will help improve your movement and ability to care for yourself in the long run.

Pressure Garments

How does a pressure garment help my scar?

Applying pressure over the scarred skin helps to produce a softer and flatter scar. It is believed that applying pressure helps to decrease blood flow to the scar. This decreased blood flow slows the production of collagen fibres, helps to align the existing fibres in a more orderly way, and helps to decrease the space between collagen fibres .

How do I get pressure garments?

When your burned skin is mostly healed and your body weight is stable, your OT will take careful measurements of the burned body part. They will work with you to recommend a design most suitable for your condition.

These measurements are sent to a company which makes the individual garments to apply specific pressure to the burned areas.

When will I receive my pressure garments?

After measuring, it takes 3 to 4 weeks for the garments to arrive. Your OT will contact you when the garments have arrived to book an appointment for fitting.

Who pays for the garments?

In BC, the provincial Medical Services Plan (MSP) will **NOT** cover the cost, therefore patients are responsible for payment of these pressure garments.

If you have extended health benefits through your employers, you should check with your insurance carrier for coverage. If you have a claim with ICBC or Worksafe BC, you should contact the case manager for coverage.

The Ministry of Employment and Income Assistance may also pay if you are eligible. If you have questions regarding payment for these garments, please contact your OT or social worker.

Can the garments be altered to fit more comfortably?

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How long will these pressure garments last?

Two sets of garments are required. Garments will last an average of 4 to 6 months with proper care, and then replacements will be required. Two sets will allow you to wear one while the other is being laundered. Hand washing your garments and hanging to dry is the best way to make your garments last.

What happens if the garments are not worn as directed?

If pressure garments are not worn as directed, the scar will continue to grow thicker. Garments should only be removed for bathing and skin care, or as directed by your OT.

What about curved areas of the body where the garments fit less snugly?

Extra pressure is sometimes required for curved areas of the body, i.e. in front of the shoulders, the base of the neck, or the front of chest. *Inserts/gels* can be used to fill these spaces; these are prescribed by your OT. Inserts can be made of various foams, mineral oil gel or silicone gel sheets. They should be removed and washed regularly. Most gel sheets have scar softening properties.

What if a rash develops because of the gel sheet?

If a rash develops, you should stop wearing the gel sheet and call your OT. There are other products that may be used instead of gel.

How should I care for my garments?

The pressure garments should be changed and washed daily. This is good for hygienic reasons and also to lengthen the life of the garments. A build-up of oils or lotions on the skin or in the garment can ruin the elastic, resulting in pre-mature stretching of the fabric. Garments will usually 'feel' tighter after being washed.



The garments can be hand washed in luke-warm water with mild liquid soap, and be well rinsed. They can also be machine washed in a garment bag on a gentle cycle. The garments should be rolled in a towel and then air dried. Using a dryer will damage the elastic fibres and the garments will need to be replaced sooner.

Clear Face Masks

Why do some people wear clear face masks?

Certain areas of the face, i.e. the cheeks, chin and nose, will get a better fit using a plastic rather than a fabric mask. Another advantage is that the face is visible and the person can be recognized. The scar will appear blanched when pressure is applied to it .

How is the mask made?

The making of a face mask is a complex process, it usually takes a few days to be completed. You will need to attend 2 separate appointments with your OT. The mask is held in place by adjustable straps.

Do the masks need to be altered?

As the scar flattens and changes, the mask must be adjusted for adequate pressure to the scars. You will need to make follow up appointments with your OT.

How is the mask cleaned?

The mask should be washed at least once a day, though preferably more often.

The mask should be washed with a cloth and soap to ensure all oils and dirt are removed. Oil and dirt build-up can irritate the skin, and may cause itchiness or pimples.

Exercising

What about exercising?

Exercise is a very important part of returning to a normal lifestyle. The pressure garments can be worn for most activities and exercise, and in fact protect the skin from accidental bumps and scrapes. Avoid getting into *contact sports* until the doctor has given permission.

Can the garments be worn swimming?

Yes: if worn in a pool, the garment should be washed and rinsed thoroughly afterwards.

No: if open wounds are present, do not go swimming as there is a risk of infection.

Exposure To Sun

What about going out in the sun?

Sunlight is very damaging to the skin, particularly when it is newly healed. A sunblock with a minimum of SPF-30 or higher is recommended. It should be applied every couple of hours and especially after swimming. A broad brim hat is recommended if you have facial burns.



Sun-protection clothing is also available on the market. Please consult with your OT for details.

Sunbathing should be avoided until the burned area is at least one year old. Newly healed skin sunburns easily, therefore exposure to the sun must be done gradually to minimize damage. Consult your doctor for guidance.

Camouflage Cosmetics

There are make-up products that you can use on the burn scar to minimize discoloration and decrease visibility of the scar. The creams used are usually opaque and waterproof. If you wish to have more information, consult with your OT.

A Final Word

Remember that a hypertrophic scar is active 24 hours a day and will become thicker if not controlled by pressure garments and exercise. This can cause loss of movement, loss of function and an altered appearance.

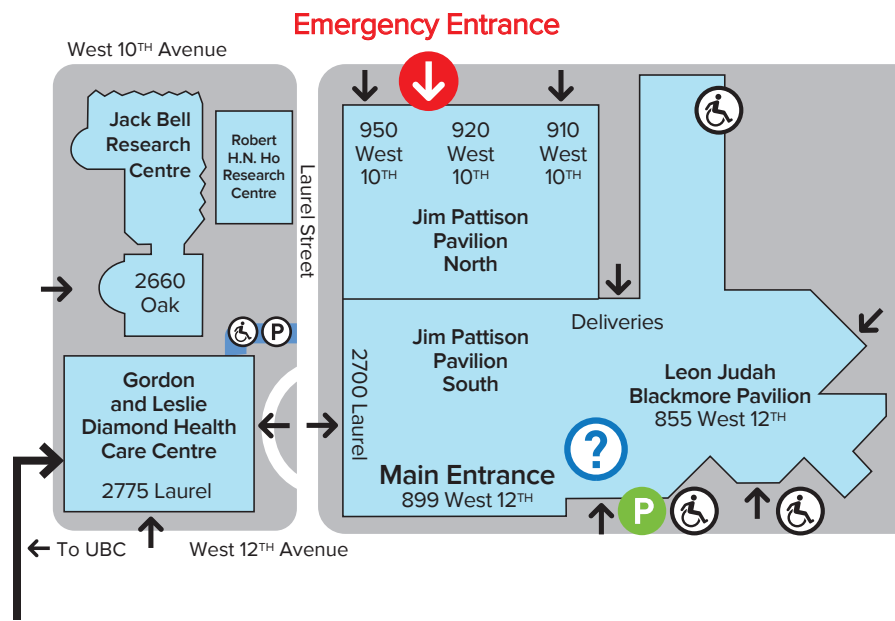
The scar may take 1 to 2 years or more to mature. During this time, the burn team will support to you and your family.

You can also join the “Future is mine” program organized through the Burn Fund; which will allow you to connect with other burn survivors through the various programs and activities.

The website address is burnfund.org or you can call their office at 604-436-5617.

For the best healing results, do your best to follow the recommendations given to you by your team. They are there to support you and your participation makes a difference.

Ambulatory Care Clinic



Location

Vancouver General Hospital
Gordon and Leslie Diamond Centre
2775 Laurel Street (3rd floor)
Vancouver, BC
Hand & Burn clinics: 604-875-4111 ext. 54095

Clinic Hours:
Wed: 8:00 am–11:30 pm
Please book your appointment

Notes



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