



# INTERIOR DESIGN:

## Optimize Your Environment for Healing or Preventing Skin Breakdown

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*INTERIOR DESIGN is a concept that is useful for both clinicians and their patients to consider when discussing health-related decisions. It refers to the idea that every decision a person makes about their life activities plays a role in their general health status and specific health problems.*

While the idea is not new, the term *interior design* is one that resonates with many people today. The "interior" aspect refers to not only the inner body but also the environment in which the body exists (home, car, workplace). "Design" implies intention, as in "it was done that way by design" as opposed to "by accident." The goal of interior design is to encourage individuals to understand the impact of each of their decisions and to help them move toward actions that will result in positive health changes. Through an understanding of interior design, we all can be empowered to become architects of our own health.

Unfortunately, we are bombarded with vast amounts of health-related information from TV,



the Internet and health-care providers. It can be difficult to make sense of it all. For a person with a complex condition, the number of life-altering changes can become overwhelming and cause paralysis of action, where an individual might then shut down and do nothing because they don't know where to begin. Even the most well-meaning clinician or educator can provide too much information.

### **Keep Things Simple**

Whether you are on the giving or receiving end of information, it is important to remember that too much information can be just as detrimental as no information at all. The key focus of education should be on the one or two things that are manageable and that will make the most change.

This concept applies to wound prevention and management as much as it does to any other aspect of health-related "interior design."

This brief outline focuses on the ONE thing (minimum) a person at risk or with a wound can do to make the biggest positive difference in preventing or treating a wound. It has been written from a patient-focused perspective and can be used by clinicians to help their patients become actively involved in their own "interior design." 🖐️

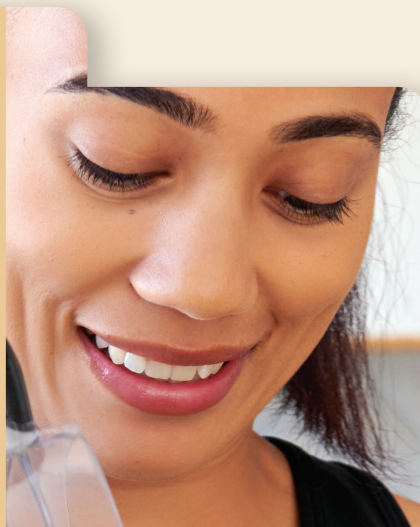
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## For all types of wounds

### Optimize the Environment

Do you want to know the key to healing a skin ulcer or preventing skin breakdown? While it is ALWAYS up to the body to heal the skin ulcer or wound, there may be factors that interfere with this process. Therefore your job is to create the best possible environment so your body can do what it needs to close the wound or prevent a wound from forming if you are at risk for skin breakdown. This is not always an easy task and may require the support and guidance of the most appropriate and knowledgeable health-care professional available.



#### KEY DESIGN RULE:

**The body cannot heal a wound until whatever has caused it is removed NO MATTER WHAT ELSE YOU DO OR DO NOT DO!**

By focusing on interior design, we hope to help you simplify the process of wound prevention and treatment. Interior design considers the choices each one of us makes that affect our bodies from the inside out—to either enhance wellness or detract from it. Sometimes you can do it yourself (DIY) when it's in the form of lifestyle choices. Sometimes it's small changes you can make, sometimes it's continuing to do what you're already doing or becoming aware of something you are not doing that you need to do! Sometimes DIY is not enough and you will need help. It is not just appropriate but imperative to call in a professional such as your doctor, dietitian or other specialized health-care professional when DIY fixes won't make enough of a difference. As in other design models it is also important to be aware of the introduction of new models and trends that may impact your health, so keep in touch with your health-care providers on a regular basis.

We've taken the latest best practice evidence and pared it down to the most essential design rules for various wounds. While the processes may not always be easy, the results will be worth it if you are at risk for developing a wound or already have one.

#### CAUTION

**On occasion there may be more than one cause for the presence an ulcer or for being at risk for one, such as pressure and arterial disease. In this case the DIY approach can be very challenging. Using a pro or a team of pros is definitely the best way to go!**



## Venous Leg Ulcer

**What it is:** Chronic venous hypertension (high blood pressure) results in a build-up of fluid in the legs, called edema, which can sometimes lead to changes in the skin and cause it to break down. When trauma, such as a knock on the coffee table, on a leg with venous hypertension results in a wound, it is called a venous leg ulcer. If the venous hypertension is not corrected, the leg ulcer may be difficult or impossible to heal.



Blood flow from the lower leg back up to the heart is called venous blood return, and it uses something called the “calf-muscle pump” to move blood upward against gravity. Valves in the veins prevent the blood from flowing back down. Poor venous blood return causes swelling of the legs and if the skin is traumatized, it results in poor wound healing.

### DESIGN RULE:

**Improve venous blood return to your heart by exercising your calf-muscle pump and by wearing appropriate compression therapy to support the valves in your veins.**

**DIY:** Exercise is important for activating the calf-muscle pump and getting blood flowing back up your leg to the heart where it can get the oxygen it needs. You need to walk, dance, run or move your ankle (by pointing your toes and then bringing them up toward your nose) while watching TV or sitting at your desk. Whatever you do, **GET THAT CALF-MUSCLE PUMP WORKING!** There might be something else going on that you need to know: if the veins in your legs have valves that don’t work properly, blood will not be able to make it back up to the heart. Compression stockings that apply enough pressure to your legs to close the valves allow the blood to flow back up to the heart and preventing swelling in the lower legs. Compression stockings may require a prescription and are available in health supply stores. The key to keeping the extra fluid out of your legs? **WEAR YOUR COMPRESSION STOCKINGS AT ALL TIMES EXCEPT IN BED.**

**Call in a pro:** You may not be aware that you are not moving your calf muscle enough to make the pump work properly and may need to seek the assistance of a physical therapist. As well, before any compression stockings are fitted you need to ensure that the swelling is reduced, so you may require compression wraps initially. In any case, you need to talk to your health-care professional to make sure compression is appropriate for you and then be professionally fitted. Compression therapy should be used with caution or not at all if you have arterial disease.





## Arterial Foot or Leg Ulcer

**What it is:** Arterial foot and leg ulcers are related to decreased blood flow in the arteries caused by blockages that can interfere with the oxygen supply to the skin, causing skin breakdown.

Arterial disease causes calf pain with exercise; pain decreases when exercise stops.

**DESIGN RULE:**  
**Arterial blood flow to the legs must be improved or restored.**

**DIY:** Arterial blood flow to the legs may be so poor that even a minor

injury to the foot or leg may not heal. If the amount of arterial blood getting to the legs is significantly reduced it may actually cause a wound, most often to the toe tips. You may be able to improve or even restore arterial blood flow by doing one or all of the following: **QUIT SMOKING, LOWER YOUR CHOLESTEROL, EXERCISE AS TOLERATED.** Exercise such as walking to the point of pain five to six times a day can increase the small arteries and increase blood to your leg. If these methods are ineffective, you may need to make an appointment with your doctor.

**Call in a pro:** If you haven't been able to improve arterial blood flow enough on your own, see your family doctor to discuss medications or get referrals to dietitians, vascular surgeons and quit-smoking programs.



## Incontinence Associated Dermatitis (IAD)

**What it is:** Incontinence associated dermatitis (IAD) can occur when urine or stool stays on the skin, leading to skin irritation and breakdown and sometimes yeast infections.

### DESIGN RULE:

**Eliminate incontinence issues, if possible, or protect areas at risk for urine or stool irritation by using a barrier cream.**

**DIY:** A barrier cream, such as a zinc cream, can protect skin from this irritation, but the best management strategy is to **RESOLVE THE INCONTINENCE** (the inability to control urination or defecation).

Babies and elderly people with dementia are at highest risk for IAD. In most of these cases, it is up to someone else to help them with their “interior design.”

professionals for the management of incontinence and can recommend treatment for any existing yeast infections.

**Call in a pro:** Your family doctor can assist with referrals to the appropriate health-care





## Neuropathic/Diabetic Foot Ulcer

**What it is:** A neuropathic/diabetic foot ulcer is a wound usually caused by a shoe that doesn't fit properly or an injury of some kind that may result when the feet are not protected or cared for properly. What makes these wounds different from many other wounds is that the person who has the wound often can't feel pain or other sensations in their feet. They may not even be aware they have damage, even though it can often be quite severe.

### DESIGN RULE:

**Be aware of neuropathy and ensure you have the right shoes and professional foot care.**

**DIY:** If you have diabetes you probably already know it is very important to manage your blood glucose levels. However, let's focus on your feet for a minute. Diabetic foot ulcers related to neuropathy result from inappropriate pressure on your feet. Shoes that don't fit properly or have become worn down are often the cause of this pressure. The pressure can then result in a build-up of skin, called callus, over bony areas. This callus build-up can actually lead to skin ulcers if not professionally managed, especially where the bone is under pressure, such as on the ball of your foot. You can prevent this type of foot ulcer by ensuring your shoes fit and are cushioned properly. If you already have a foot ulcer you need to **REMOVE THE PRESSURE** from the ulcer site. How? **STAY OFF YOUR FOOT OR GET SPECIAL SHOES** made especially for reducing pressure. Staying off your foot might be difficult but it is worth it to heal your ulcer.

**Call in a pro:** You may need to make an appointment with a professional such as a podiatrist or orthotist to get advice on what type of footwear is right for you. If callus build-up or an ulcer is present, you may require professional help and lifestyle adaptations to reduce or eliminate pressure on the foot.



If you have diabetes you may have what's known as peripheral neuropathy, meaning you may have limited ability to feel your feet and not even know it. The lack of sensation, or feeling, in your feet affects your ability to feel if your shoes fit properly or if you have an injury to your foot that needs attention.

## Intertrigo

**What it is:** Intertrigo is an irritation of the skin caused by skin rubbing on skin in a damp, warm environment that can lead to skin breakdown and possible infection.

The most common locations for intertrigo are under the breasts, in the groin and in the skin folds of overweight individuals.

### DESIGN RULE:

**Lose weight and keep skin folds from rubbing against each other. Keep problem areas clean and dry.**

**DIY:** The most common areas where intertrigo occurs are places where skin folds onto itself such as under the breasts, under the arms, stomach folds and in the groin area. Intertrigo can be treated when you **REMOVE THE ENVIRONMENT** (damp and warm) **THAT CAUSES IT**. Wear breathable clothing made of natural fibres such as cotton rather than acrylics and polyesters. Antimicrobial fabrics may also be used to place between skin folds.

**Call in a pro:** Yeast infections are common with intertrigo, and an antifungal medication can be prescribed by your family doctor. You may also need a supportive weight-loss program to guide you to an ideal body weight. If you've already lost a lot weight and skin folds are the result, you may need to visit a plastic surgeon to discuss removal of the excess skin.





## Pressure Ulcer

**What it is:** A pressure ulcer is a wound caused by ... you guessed it: pressure! Pressure reduces or stops blood flow to an area, causing tissue to break down and the skin to open. In some cases the wound can go right down to the bone. This is especially common over areas where the bone is close to the surface, such as at the base of the spine, on the hips and over the ankles.

### DESIGN RULE:

**Be aware of and remove or reduce pressure from bony areas.**

**DIY:** Removing pressure is key. This means you must **MOVE REGULARLY**, even if the movements are small (and sometimes that's all it takes). If you have issues that affect your ability to move it is also important that EVERY SURFACE you sit or lie on is designed to keep the pressure off. This includes your wheelchair and bed and even your sofa, kitchen chair and car seat.

**Call in a pro:** You may need to consult a physical therapist or occupational therapist who can help you choose the right surfaces to sleep or sit on. There are many types of specially designed furniture pieces available. If you have a pressure ulcer that persists or you are unsure of the care required you may need to call in a wound care specialist.



## Skin Tear

**What it is:** A skin tear usually occurs when fragile skin bumps against a hard surface, causing the top layers of skin to be moved and torn from the surrounding skin.

### DESIGN RULE:

**Prevent injuries to the skin by creating a protective environment in both your clothing and your surroundings.**

**DIY:** Long sleeves and long pants give some protection, but you may need to **PAD BONY AREAS**. Common and easy to obtain, soccer shin pads can be worn under pants and provide an extra layer between you and the

As people age they tend to have thinner skin and therefore are at risk of getting skin tears. The cause is usually minor trauma such as hitting a shin on a coffee table or an open dishwasher door.

coffee table. You may also need to **REDUCE** the number of potential **INJURY-CAUSING ITEMS** from your living space, so say goodbye to the hard wooden coffee table!

### Call in a pro:

Health-care professionals, such as

nurses and occupational therapists, will support the prevention of skin tears through skin hygiene and hydration, responsible bathing, good nutrition, appropriate clothing and the removal of environmental risk factors.

