

PRESSURE ULCERS (BED SORES)

△ GENERAL INFORMATION

A pressure sore (*decubitus ulcer*) is an area in which tissue over a hard surface (usually bone) has died because of pressure on it that was severe enough or lasted long enough. Such pressure blocks blood vessels, cutting off blood supply and oxygen to the tissue and causing it to die. It is surprising how quickly the tissue can suffer when enough and continuous pressure is applied to it. Four hours of enough and continuous pressure will temporarily damage the tissue. Eight hours of such pressure can produce permanent changes that develop into an ulcer.

Conditions under which pressure ulcers are commonly seen include the following:

- Older patients who are weakened and have to lie in bed because of a number of medical problems. Also, in such patients the skin is weak and unable to tolerate such blockage of its blood vessels.
- People with paraplegia: Often, such individuals have difficulty moving frequently enough. Also, they don't properly feel the pressure against their flesh.
- People with nerve conditions (example: multiple sclerosis) that keep them from moving properly.

COMMON SIGNS AND SYMPTOMS

The signs and symptoms depend on a number of factors, including the following:

- The location of the pressure.
- How long the pressure was present.
- The size of the ulcer.
- Whether or not the dead tissue has become infected.
- The general condition of the person with the ulcer.

Generally, there is a progression of events in the development of a pressure ulcer, as follows:

- At the beginning, there is a redness of the area that appears after the pressure is removed.
- With longer pressure, the redness does not go away soon.
- With even more prolonged pressure, redness and blisters may develop.
- In the next stage, tissue dies, forming a shallow ulcer.
- In the more advanced stage, the ulcer is deeper.
- Finally, the skin and tissue under it develop gangrene and become black.
- In later stages, the ulcer as well as the bone deep to it can be infected.

DIAGNOSIS

The diagnosis can be made when seeing someone with the above history and findings.

- Sometimes the skin has what appears to be an innocent-looking small hole over a raw area. This, however, can be misleading. Once the skin with the small hole is opened, a large amount of dead tissue may be found underneath.
- X-rays may be necessary to look for infection or dead bone at the bottom of the ulcer.
- A sample of any drainage from the ulcer can be taken to the laboratory to see what type of bacteria

may be present and which antibiotic is the most effective against them.

○ TREATMENT

- Any underlying problems will be corrected as much as possible.
- Generally, if an ulcer has already developed infection and is producing symptoms, the person needs to be in a hospital for care.

The care given an ulcer when a person needs to be hospitalized varies considerably, depending on the special conditions of a patient, but it can include the following:

- Shallow ulcers can be treated with a variety of ointments.
- Antibiotics are given as necessary.
- Deeper ulcers need to have dead tissue trimmed—a little every day—and the area covered with appropriate dressings. Such ulcers can gradually heal without any further treatment.
- Gangrenous tissue also needs to be removed, either in stages or all in one setting.
- Larger or deeper ulcers (whether they first present that way or are what results when the gangrenous tissue is removed) frequently require an operation. Several types of operations can be used as follows:
 - All of the dead tissue is removed and the edges of the ulcer brought together, all at one time.
 - All of the dead tissue in a larger ulcer is trimmed down to where healthy tissue is available.
 - The skin with its attached fat and muscle from the area next to the ulcer is slipped sideways to cover the ulcer itself. This is called a *sliding pedicle graft*. Such a graft provides healthy, thick tissue and has the best chance for success in these situations.

After careful consideration of all factors, the recommendation is that you have an operation to clean up your ulcer. If simple closure is not possible, then the ulcer will be covered with a pedicle graft.

PREOPERATIVE PREPARATION

- You will be helped to achieve the best condition possible for the operation. This may include blood transfusions, improving your nutrition, and attention to problems of your lungs, heart, and kidneys, as well as other problems.
- Do not eat or drink anything for 8 hours before the operation.

□ OPERATION

- You will be asleep for the operation.

POSTOPERATIVE CARE

- You will be taken to a recovery room and observed. When your blood pressure, pulse, and breathing are stable, you will be taken to a regular hospital room.
- Pain will be controlled with medicine.
- Your diet will be as tolerated.

- Arrangements will be made for your wound care when you leave the hospital.
- As with any operation, complications are always possible. With this type of operation, complications can include breakdown of the repair, heart attack, stroke, pneumonia, blood clots, and possibly others.

AFTER CARE

- You will either go home or return to the nursing facility from where you came.
- Continue with the program started while you were in the hospital.