

HALO ORTHOSIS



HALO – Front View



HALO – Back View

You have been placed in a halo vest. This orthosis (brace) is used to immobilize a neck fracture or injury until it heals or to immobilize the neck after a spinal fusion. The amount of time you will be required to wear the halo is generally 12 weeks – this may vary with your injury or healing time and will be determined by your physician. The pins are inserted directly into the skull and how tight they are inserted is precisely determined based on an individual's age, injury, bone quality, etc... The number of pins used is also dependent on the individual and their injury. The average number for adults is 4-6. The halo consists of three main parts:

1. The ring and pins
2. The vest
3. The superstructure (uprights that connect the ring to the vest)

EMERGENCY WRENCH

The emergency wrench must be attached directly to the halo vest at all times. Do not carry it in a pocket or bag – keep the wrench attached where it is easily accessible. The emergency wrench is not intended for self adjustment to the halo – it is reserved for emergency removal of the halo only.



PIN CARE

It is necessary to clean the pins carefully **once** each day. Clean each pin site with a mixture of ½ peroxide and ½ normal saline solution once per day. If you use premixed normal saline, it is only good for 24 hours after opening. Use a new sterile cotton swab for each pin site. Gently clean

around each pin site. Push the skin back around the pin to prevent the skin from growing over the pin; remove any adherent drainage or crusty material

To make your own saline solution:

1. Boil one pint of water for ten minutes.
2. Stir in one-teaspoon salt.
3. Cool.
4. Pour into covered container.
5. Store at room temperature for 24 hours.

BATHING

You will not be able to bathe or shower with your halo on. To wash your body under the vest, use a thin face cloth or hand-towel.

Use a small amount of soap and hot water.

Wring the towel out well and insert under the vest, pulling the ends of the towel back and forth.

No lotions or powders should be used under the vest.



HAIR WASHING

Your hair should be washed only as often as necessary. Assistance is **always** required.

Remove the Velcro shoulder straps and cover the top of the vest with plastic to prevent the liner from getting wet. Place a towel around the back of your neck.



Kneel beside the bathtub and bend forward with your head over the tub until your head is lower than your shoulders if possible. You could also lean over a sink. If this results in pain or discomfort, stop immediately.

Use a *minimal* amount of shampoo.

Rinse your head by having your assistant pour water over the back of your head slowly or use a flexible hose. Tell your assistant to stop

immediately if you feel water going into the vest.

While the halo is in place, do not use any conditioners, sprays, dyes or tints on your hair.

Dry shampoos can also be used if your sink or tub is not accessible.

Pin care should be done after shampooing your hair to clean any soap away from the pins.

Blow dry the posterior pin sites dry with a hair dryer on the **COOL** setting immediately after getting the pins wet.

CLOTHING AND FOOTWEAR

You may find it difficult to wear “normal” clothes with your halo. Oversized shirts and button down shirts can usually be worn easily. Adaptations to some clothes can be made by adding Velcro straps to shoulders or increasing the size of the neck opening to fit over the halo.

A T-shirt or undershirt should not be worn under the halo vest. The only time this is allowed is if an allergic reaction to the vest liner develops. In this case a snug fitting undershirt can be put under the vest after the shoulder straps of the undershirt have been cut. Apply the shirt over the feet and slowly work up under the vest. Safety pin or Velcro the straps to prevent the shirt from sliding down. For women, if a bra is necessary to prevent impingement from the vest, slide an exercise type bra on over the feet and work up the same way as the T-shirt under the vest. Shoes with good traction and no heels are recommended. High heels and shoes with little traction can change your balance and increase your chance of falling.

DRIVING / TRAVELING

Do not attempt to drive. While you are wearing a halo, you cannot turn your head and are considered an impaired driver. It is extremely unsafe for both you and other drivers. You could cause an accident or get a ticket. To enter a car, back into the seat with your body bent forward. Swing your legs around. To get out, reverse the process. Always wear a seatbelt. Do not ride a bike or any wheeled vehicle as balance is difficult and the danger of falling is great.

You can travel on an airplane without problems if necessary. The airlines will let you pre-board. You may set the metal detectors alarms off.

Riding on trains, buses, subways can be difficult because they shake quite a bit and the vibrations may travel up to your pins. Try to travel at less busy times to avoid being pushed or contacted unnecessarily.

SLEEPING

When your halo is first put on; you will not be accustomed to sleeping with your head suspended. Putting a rolled towel or pillowcase between your head and the back of your neck (when on your back) or next to your cheek (when on your side) will help you feel more normal.

It is important that the rolled towel merely contacts you and does not apply pressure. You can sleep on your stomach if you want. Put a pillow or blanket at your chest and forehead so your face is not pressed into the mattress. The pillow or blanket should apply no pressure. Regardless of how you sleep, you may be stiff in the morning. This will improve with time.



GETTING UP

When getting up out of bed, it is important to NOT try to sit straight up by bending at the waist. This puts extreme stress on the front pins. Get up by rolling onto your side at the edge of the bed, drop your legs off the edge and push with your elbow and hand at the same time.



ACTIVITY

One purpose of having a halo is to allow you to be active as you heal. You may resume activity with the halo on (work or school) as allowed by your physician. If you find that you have pain after an activity, stop and rest. If the pain persists or worsens despite stopping the activity, contact your physician. You may find that you tire more easily, so allow yourself rest periods during the day. Your sense of balance may also be different due to the weight of the halo. It may take up to several weeks to regain your sense of balance during all activities.

You must avoid all activities that involve heavy lifting, jumping or running. Lifting is limited to 5 lbs.

DO NOT:

- ❑ Adjust or loosen any part of the vest yourself
- ❑ Loosen or tighten pins or lock nuts around the pins
- ❑ Add anything under the vest for comfort (pads, towels ...)
- ❑ Allow anyone to lift or assist by pulling on the bars or ring
- ❑ Continue activity if it causes pain or irritation
- ❑ Change pin site care protocol
- ❑ Get liner wet or remove liner under vest
- ❑ Lift anything greater than 5 lbs.

THINGS TO WATCH FOR:

- ❑ Redness, swelling, yellow drainage from the pin sites
- ❑ Pain in neck or at pin sites
- ❑ Fevers greater than 101
- ❑ Swelling or redness under the eyes
- ❑ Movement of the head or neck
- ❑ Pin loosening or movement of the pins



Should any of these symptoms occur, call:

8:00 AM - 4:30 PMOrthopaedic Clinic nurses (734) 936-5717

.....Neurosurgery Clinic Nurses (734) 936-7010

After hrs/weekend/holidaysOrthopaedic resident on call (734) 936-6267

**If you are unable to contact someone and your pain persists or increases,
go to the emergency room immediately!**

HALO REMOVAL

PINSITE CARE

You can shower 24 hours after your halo is removed. Gently pat the pin site areas dry after showering.

Cover the front pin sites with a band-aid until the area is scabbed over. Apply bacitracin ointment to the pin site areas for the first two days after a scab has formed.

COLLAR SUPPORT

After your halo is removed all the weight of your head is on your neck again. Because the muscles in your neck have not done any work for many weeks, your head will feel heavy. You will be fitted with a soft or semi rigid cervical collar to support your neck. It is normal for your head to feel heavy and this will improve with time.



You may remove the collar to shower.



You may remove the collar in 2-3 days depending on your comfort level unless told differently by your physician at the time of your halo removal.

You may be sent to physical therapy, but this is decided on an individual basis.

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