



Handling and positioning for the prevention of pressure injury

by Manuela Tronchini

Promote the recovery of patients after prolonged hospitalization thanks to correct handling.

Summary

Handling and positioning

by

*Manuela
Tronchini*



Physiotherapist registered in the Piacenza D.U. to the health profession of physiotherapist achieved to the ASL 28 Bologna Nord. She currently works at C.R.A. and a day care center for the elderly.

Introduction 03

Prone Position 04

Supine position 06

Semi-sitting position 08

Position in lateral decubitus (right and left) 10

Semiprone position 12



01. Introduction

Prevention of pressure injuries

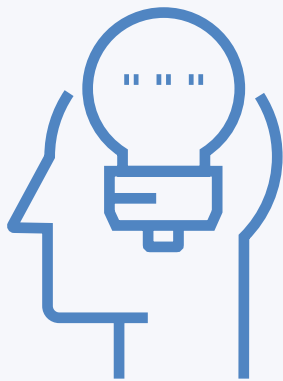
01

An increased sensitivity to the problems of prolonged hospitalization has highlighted the need to provide operators with an introductory guide to the topic of prevention.

How can the damage resulting from a long hospitalization be reduced or eliminated?

Mobilization must be an integral element of patient care, as well as the rehabilitation project. In fact, in people with prolonged hospitalization, the damage caused by bed rest can compromise all treatments and causes

slow and often incomplete functional recovery. In addition to the decrease in the risk of decubitus injuries in the usually affected anatomic areas, the frequent change of posture has also resulted very effective for the prevention of tendon retractions, muscles and damage to the articular structures, as a patient left for a long time in the same position may develop contractures and / or ankylosis of the joints which could condition the resumption of motor activity once the acute phase is overcome.



Prone Position

Recommended devices

Cushions
and Positioners

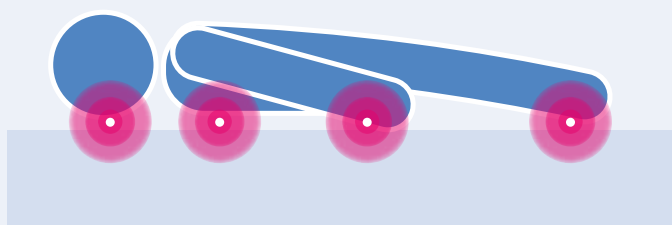


Tubular and Sheet



The prone position, also called the position of the swimmer, provides for the patient positioning with the ventral side downwards and the dorsal area upwards.

Effectively support the work of multiple operators



02

In a healthy and independent person, this position becomes easily manageable, but in a bedridden and immobilized patient, the help of several operators is required. The procedure becomes complicated when talking about a person subjected to mechanical ventilation because in addition to the critical state of health there are numerous devices involved.

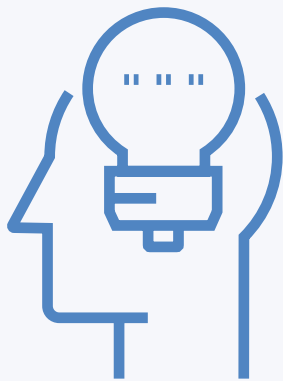
Pronation maneuvers must always be carried out in safe conditions, preparing aids and supports useful for positioning of the patient.

Rotation occurs in 4 stages

- » 1. Align the patient on the bed with his arms at his sides;
- » 2. move the patient to the edge of the bed laterally to the direction of rotation (high sliding sheet);

- » 3. start the rotation by slightly lifting the trunk and pelvis to allow the passage of the arm which is between the patient's body and the bed;
- » 4. take the arm back and complete the rotation by placing the patient in the prone position;
- » 5. after the maneuver, the operator positions the patient correctly with all the necessary devices, reconnecting the monitoring and infusion lines.

Place four aids to be placed one under the head, one at the level of the sternum handlebar, one at the level of the iliac crests and one at the feet (the aids must be soft and about 15/20 cm in height).



Supine position

Recommended devices

Cushions
and Positioners

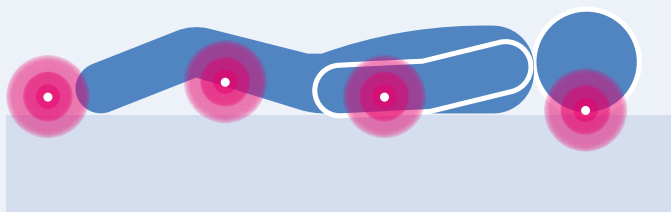


Tubular and Sheet



It occurs when the body is placed in horizontal position, stretched out on a plane surface, with face upwards; it is a rest maintenance position.

Support the position of rest maintenance



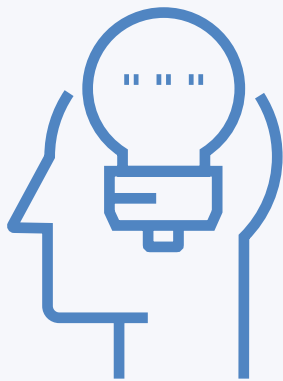
03

It is the horizontal position assumed by the body when it is stretched out on a plane with the face turned upwards; it is a position for maintaining rest, which is indicated in various clinical conditions, as an alternative to the lateral, semi-sitting and prone positions.

The supine position is absolutely not recommended for patients with dyspnea or for those who need aspiration. Postural alignment is indicated for people without or with partial motor capacity.

How to perform correct supination

- » 1. Bring the bed surface to a horizontal position;
- » 2. align the patient's head and trunk;
- » 3. position the upper limbs in this way: forearm extended with the elbow slightly flexed, the wrist supine and extended, the hand open;
- » 4. align the lower limbs, possibly placing a special device under the heels to avoid the onset of pressure sores;
- » 5. place a headband at the bottom of the bed to raise the blankets, avoiding them from burdening the extremities of the lower limbs, risking injury.



Semi-sitting position

Recommended devices

Cushions
and Positioners

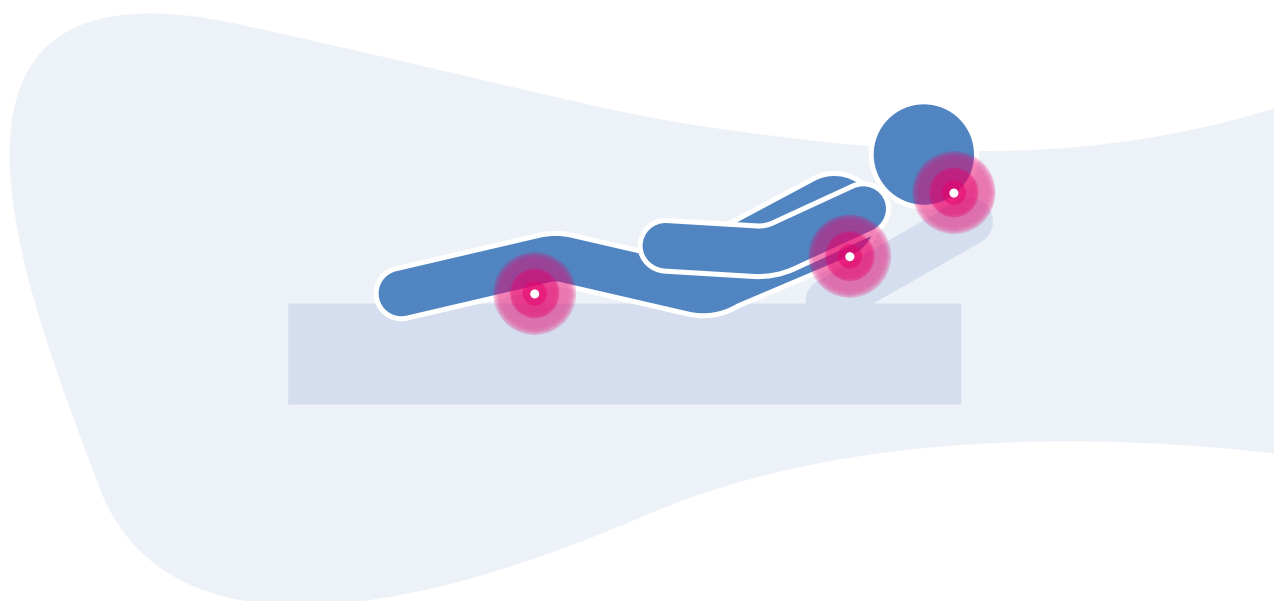


Tubular and Sheet



The semi-sitting position allows greater comfort for the patient suffering from dyspnea. To obtain maximum effectiveness, suitable positioning devices should be used.

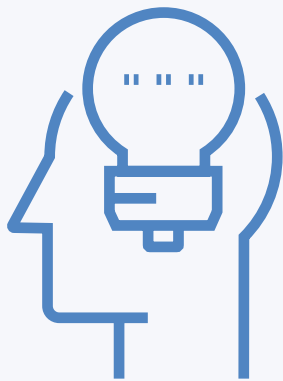
Better support for patients with dyspnea



04

To obtain the semi-sitting position, we resort to the use of cushions and / or aids specially manufactured and following some steps:

- » 1. Bring the bed surface to a horizontal position;
- » 2. align the patient's head and trunk;
- » 3. position the upper limbs in this way: place a cushion to support the limbs on each side of the trunk, forearm extended and elbow slightly flexed, wrist supine and extended, hand open;
- » 4. align the lower limbs or flex them slightly (the flexion of the lower limbs must be supported by the raising of the lower part of the bed or by a suitable device placed under the knees);
- » 5. raise the head of the bed by 45 °.



Position in lateral decubitus

Recommended devices

Cushions
and Positioners

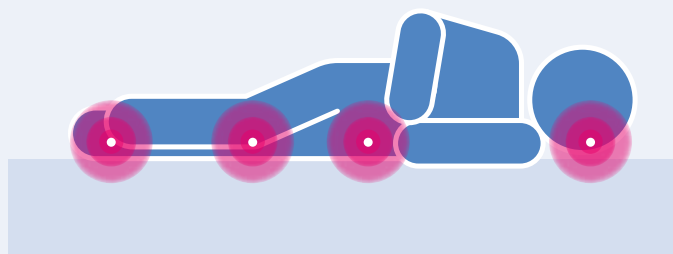


Tubular and Sheet



During the supine position, the patient has skin areas that are particularly exposed to the risk of injury. The right or left lateral decubitus position is intended to ensure a period of rest.

Support proper spinal alignment



05

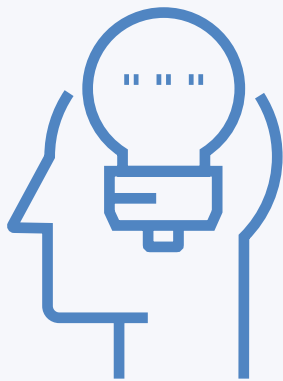
This posture is used to provide a rest period for the skin areas under pressure during supine decubitus.

To mobilize the patient from the supine position to the left lateral position, the following operations must be followed, taking care to use the correct devices.

- » 1. Lower the head of the bed;
- » 2. lift and lock the left side rail;
- » 3. use a sliding sheet, move the patient towards the right edge of the bed;
- » 4. place the left arm further away from the trunk, so that in the rotation movement it does not remain under the patient's body; bend right arm across chest. If the patient is cooperating, ask him to grasp the rail with both arms;

- » 5. flex the right knee;
- » 6. using the sliding sheet, turn the patient to the left.

Always due to the risk of pressure injuries, lateral decubitus at a right angle on the trochanter should be avoided; therefore, assume an oblique posture of 30°. Extend the leg that rests directly on the mattress, flex the arm corresponding to the leg, keeping the palm of the hand facing upwards, slightly flex the counter-lateral leg and make it rest on a small pillow; flex the corresponding arm and place the palm of the hand on a small pillow.



Semiprone position

Recommended devices

Cushions
and Positioners

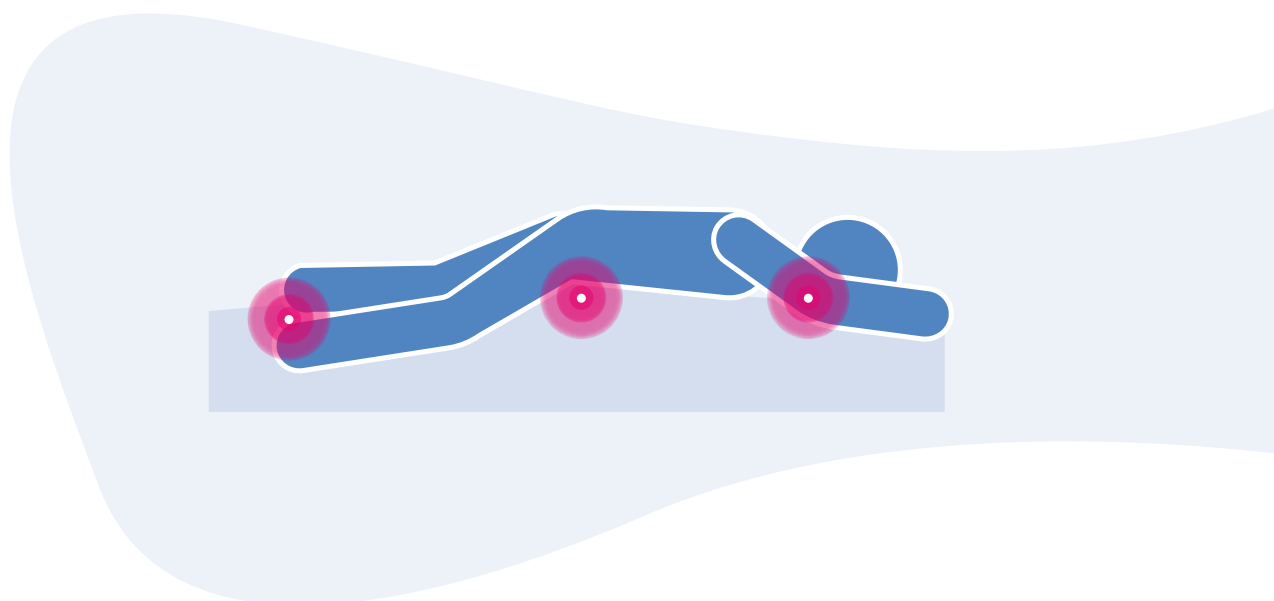


Tubular and Sheet



The patient's weight is distributed towards the iliac crest, the humerus and the clavicle, he is positioned on his side in an intermediate condition between a complete pronation and lateral decubitus.

Semiprone position, to relieve pressure on the sacrum and trochanter, as an alternative to the prone



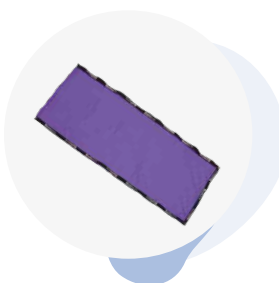
06

This position is also known in the literature as the Sims position. Unlike the full ventral position of pronation, the patient lies on his side with the weight distributed towards the anterior iliac bone, humerus and collarbone. The head is well supported by the pillow, to ensure patient comfort and to keep the cervical spine in lateroflexion.

The trunk is rotated forward. The arm is supported by the cushion placed in front of the patient at an elevation of about 90 ° with the shoulder blade well extended, the elbow slightly flexed and the forearm prone. The leg is slightly flexed at both the hip and knee, is then carried forward and completely supported by a cushion, making sure that the foot does not fall over the edge of the cushion itself.

Products mentioned in the White-Paper

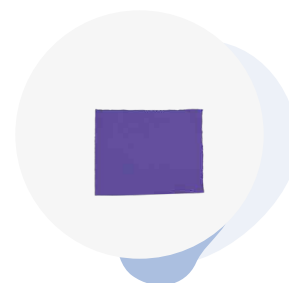
A product
designed for
every use



Sheet

With handles to facilitate handling

Nylon sheet used for the positioning of bedridden patients with a dual function: the largest sheet directly on the mattress and, above, the smaller one. These sheets are positioned on the bed as a bed saver: thanks to the handles, the top sheet in contact with the patient can be made to move in all directions.



Tubular

Easy and immediate

Tubular sheet used to facilitate the movement and handling of bedridden patients. It is positioned under the patient as a bed-saving crossbar, allowing it to slide in various directions with extreme ease. A product designed for every use.

[Find out more online](#) ►

...many other models available



Microspheres cushions with interchangeable covers

Reusable and suitable for all pressure injury prevention uses

It ensures an excellent mix of comfort and adaptability for people subjected to particular mobilization treatments. Cushion made of expanded polystyrene microspheres. The outer lining is made with 100% polyurethane fabric, antibacterial, anti-mite, hypoallergenic. The cover is washable by hand using neutral soap and at a temperature of 90°.



[Find out more online](#) ►

Products mentioned in the White-Paper

...molti altri modelli disponibili



Gel positioners

40 models for every positioning requirement

The gel positioners mainly used in the operating room, but can integrate the use of other types of product as there are many models ideal for each specific therapeutic or prevention need. Latex free, non-toxic, radiolucent, antistatic and odorless. The external film is in breathable and waterproof Platilon. In the event of accidental breakage, the gel does not come out, does not decompose, does not absorb liquids or odors.



Find out more online ►



...many other models available



Disposable Positioners

16 models available for a complete support to each anatomical district.

They offer an economical and efficient solution for patient support and positioning during medical procedures. Disposable positioners made of elastic and non-deformable polyurethane foam 25 kgm3 +/- 5%, non-toxic and latex free. Their characteristic of being disposable or single-patient makes them suitable for situations where it is necessary to have ready-to-use solutions designed to combat cross-infections.



Find out more online ►



BioMatrix S.r.l.
Via Maffini, 23 - 29010 San Giuliano di Castelvetro (PC) Italy
Tel. +39.0523.826619 - +39.0523.826728

info@biomatrix.it
www.biomatrix.it