

Study: orthotic treatment for the patient with stroke outcomes



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PROBLEMS:

- **Shoe not appropriate**= risk factor **for falls**
- **The high costs and time of personalized shoe's production** lengthen the **rehabilitation time**



AIM OF THE PROJECT: study of the efficacy of **ACTIVITY DCS PODartis shoes** in patients with **stroke outcomes**, with the aim of evaluating the variables that allow a **safer deambulation**



Test on 20 patients (males and females) with hemiparesis, ischemic and hemorrhagic stroke

GAIT OF THE PATIENT WITH STROKE OUTCOMES



CLINICAL PROBLEM:

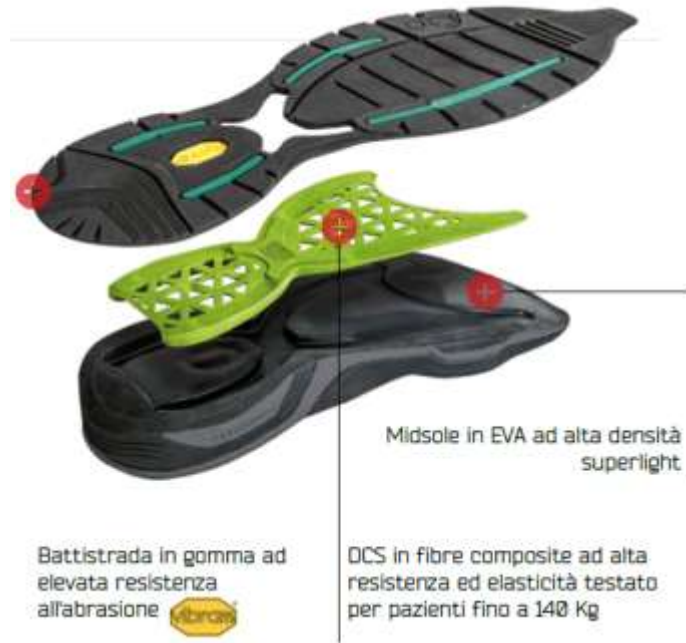
- Hypotonicity or muscles stiffness (spasticity -> contractures)
- Fear of falling or moving, due to the perception of having a foreign limb.
- Standing balance is impaired.
- The posture is changed: neck flexed towards the sick side, head rotated towards the healthy limb, external rotation of the hip and dangling foot.

ORTHOTIC OBJECTIVE

- Recover safety during gait
- Prevent and avoid falls
- Improve the push-off phase
- Increase volume in order to insert a brace



IDEAL SHOE: ACTIVITY DCS



Plus:

- Pronation control
- Prevention of sole's collapse
- Extra Volume for overweight patients (13/14,5)
- DCS – Dynamic forefoot lever to: stabilize and facilitate neurological patients steps.

Technique:

2 measures -> 13 / 14.5
DCS insert
3 level of density

DYNAMIC WALKING SYSTEM - DCS



DCS AFO

Unwinding support orthoses of the step



DCS insert, thanks to its configuration, behaves like a dynamic orthoses that helps muscular deficiency due to neurological problems.

IMPROVE THE PUSH-OFF PHASE