

Suction grab rail

Straight or square-angled bar installed onto a side wall by means of suction caps to allow the person firmly grab and thus provide support while standing or transferring from one position to another, for instance to enter a bathtub or a shower or moving from the wheelchair to a bed; the grab bar can be removed by loosening the cups and relocated in other places. The framework may be made of metal, plastic, wood or other materials.

- **Product Classification**

- APL (WHO Assistive Product Priority List): 16 (Hand rails/grab bars)
- ISO 9999:2022: 181810 (Removable grab rails and handgrips)

- **Possible configuration variants**

- Coating (which may be textured or made of metal, plastic, epoxy or other materials).
- Number of suction cups: more or less than two.
- Junction between the suction cup and the rail: articulated to be fixed on a corner.

- **Possible accessories or optional components**

None specified.

- **Product goals**

Activities or functions the product is mainly intended to support, according to WHO ICF Classification:

- Changing body position [\[d410\]](#) (standing up or sitting down).
- Maintaining body position [\[d415\]](#).
- Transferring oneself [\[d420\]](#).

- **Indicated impairments**

Difficulties the product is mainly intended to address, according to the WHO ICF Classification:

- Changing body position [\[d410\]](#) (difficulty in standing up or sitting down).
- Transferring oneself [\[d420\]](#)
- Muscle power functions [\[b730\]](#).
- Stability of joint functions [\[b715\]](#).

- **Contraindicated impairments**

Difficulties for which the product may be inappropriate:

- Severe difficulty in grasping/gripping. *Unless used with variants: Coating*
- Severe arms weakness.

- **Indicated environments**

Specific environments in which the product should be used:

- Wall-bordered paths.

- **Contraindicated environments**

Environments in which the product may be inappropriate:

- Weak walls.
- Walls lacking points where the rail can be safely fixed to bear the person's weight (such as uneven surfaces, small tiles, structured tiles, or drywall).

- **Other indicated factors**

Other factors or situations the product is intended to address:

- Having had a fall in the past months or feeling at risk of falls.

- **Other contraindicated factors**

Other factors or situations in which the product may be inappropriate:

None specified.

- **Points to be considered in product selection**
 - Suction grab rails are only intended to assist transfer with balance: they are not as weight bearing as the fixed grab rails.
 - An unsafe grab rail is a potential source of accidents rather than a facilitator.
 - Select the shape and the size of the grab rail depending on your personal transfer needs and techniques, your height and weight, and the amount of mobility and strength you have in your hands, arms, and shoulders.
 - Knowing and mastering the transfer techniques that are most effective for the individual case (whether in the bathroom or in the sleeping rooms or in other situations) is a prerequisite for appropriate selection, as different techniques may involve different grab rail shapes and positioning; in case the user is uncertain about the best technique, consulting an experienced professional is strongly recommended.
 - The grab rail safety depends on the technical quality of the selected product item (including the bar itself, the bar supports and the suction cups) and the walls where it is going to be installed.
 - Suction grab rails attach to a smooth surface by forming a strong suction grip at each end; a suitable suction can be only obtained on smooth tiled walls.
 - Choose the grab rail coating based on your gripping ability, comfort perception, heat / cold sensitivity, and aesthetics.
- **Points to be considered in product fitting**
 - Make sure that the wall is dry and clean before applying the suction cups.
 - Make sure that the grab rail is positioned in such a way to provide the best support that is consistent with your transfer technique.
- **Points to be considered in product use**
 - If you happen to experience losses in the hand's strength, or pain in the hands or wrist or elbows or shoulder, your gripping ability may be temporarily hindered; additional support by another person may be advisable.
- **Points to be considered in product maintenance / follow-up**
 - Regularly clean and sanitize the grab rail.
 - Regularly inspect the grab rail stability and safety: if the cups loose suction, remove the grab rail, clean accurately the wall surface and reinstall the rail again; if the cups or other components show deformation or breaks, repair or change the grab rail.
- **Examples of products available on the market**
 - Live product search in the EASTIN website <https://www.eastin.eu/en/searches/products/list?iso=181810>

Source

This Fact Sheet was compiled in 2021 by an international team of experts, to provide the initial knowledge base for a project ("An online system to assist the selection of assistive product") supported by the World Health Organization in 2020-2021 within the GATE Initiative (Global collaboration on Assistive Product). Fact Sheets were compiled for each of the 50 types of products included in the WHO APL (Assistive Product Priority List).

The team was composed of Renzo Andrich (Italy, group leader), Natasha Layton (Australia), Stefan von Prondzinski (Italy), Jerry Weisman (USA), Silvana Contepomi (Argentina) and Hasan Minto (Pakistan).

The project led to a prototype online tool called ASPREX (ASsistive PProduct EXplorer). At the end of the project, it was transferred to a WHO collaborating center (the Global Disability Hub in the UK), in view of possible future developments.