

Technical Note*

A NEW TRANSFER DEVICE FOR PARAPLEGICS

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THE purpose of this short report is to introduce a new means of independence for patient transfers. This appliance is derived from the standing frame and permits more independence while standing up in such a frame.

Every one knows the advantages of the standing bars, allowing the paraplegic

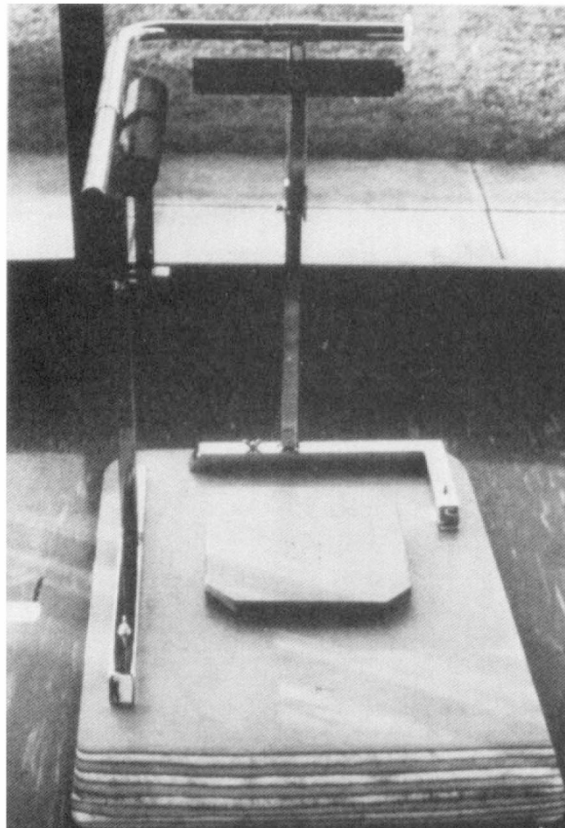


FIG. 1

The new transverse standing frame for paraplegics.

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to remain upright without any apparatus other than straps to keep the hips and knees in extension. This position permits freedom of the trunk and arms as well as the possibility of carrying out hyperextension exercises of the hips without assistance. Furthermore, the standing frame provides the possibility of reading or doing something else whilst upright.

Operation of the new apparatus

From this device we have added a few items to permit more independence. Fig. 1 shows the new apparatus and one can see that the shape is slightly different. There is a double bar built in an L form allowing a move from one bar to the other. There are no straps, but on each bar there is a lever which can be pulled down to fix the knees while standing up. Adjustments for height is provided. On the floor of the standing bars, a revolving plate has been incorporated permitting rotation in all directions. This rotating device is covered by a large platform giving more room for the feet and allowing a better balance. Because of the rotating plate, the paraplegic patient when upright in the standing bars, may easily pivot to the desired angle. Then the patient only requires to raise one of the bars, to change his position and then lower the lever again on the other bar. From the new position facing in another direction he can possibly sit on another seat, work in another direction, etc. . .

Conclusion

Every effort must be made to reduce patient's difficulties and reduce his dependence on others, by providing him with special aids. We think that this new type of standing frame plays an important role not only for his independence but also in allowing the patient to obtain better preventive care. This position not only discourages deformities but also has a favourable effect from a metabolic point of view.

The upright position causes weight and stress on the bones of the lower extremities and this helps to reduce the development of osteoporosis. Furthermore, this plays a favourable role for upper urinary tract function. In designing this new device we were concerned not only with achieving the stated aims of transfer and standing managements but in addition we wanted a device that could be made from standard components by any orthothist or occupational therapist at little extra cost and a device that was easily managed. Thanks to this modification of the 'standing bars', they have become a more dynamic technical aid and can permit the patient to transfer to another direction for his activities.

SUMMARY

A new transfer device is presented which gives more independence to the paraplegic while transferring.

This appliance is derived from the standing bars to which a revolving platform has been added permitting rotation in all directions.

In addition to the advantages of the standard standing bars, this new inexpensive device offers many possibilities which increase the independence of the patient.

RÉSUMÉ

Un nouveau moyen auxiliaire permettant plus d'indépendance pour le transfert du paraplégique est présenté.

Il dérive du 'standing bars' auquel une plate-forme de rotation a été ajoutée permettant de tourner et de faire face à d'autres directions. En plus des avantages du standing bars, ce nouveau moyen peu coûteux offre toute une gamme de possibilités augmentant l'indépendance du patient.

ZUSAMMENFASSUNG

Ein neues Hilfsmittel, das mehr Unabhängigkeit für das Wechseln der Positionen von Paraplegikern erlaubt, wird präsentiert.

Man hat dieses Hilfsmittel von den 'standing bars' her entwickelt, auf diese man einen Drehteller montiert hat, der sehr viel Bewegungs- und Richtungsmöglichkeiten für den Paraplegiker zulässt.

Ein weiterer Vorteil gegenüber den 'standing bars' ist, dass dieses relativ billige neue Hilfsmittel eine ganze Reihe von Möglichkeiten für eine grössere Unabhängigkeit des Patienten bietet.