Tel.: 1 877 622-2472
Fax: 1 855 860-5595
info@waramps.ca

Canoeing and Kayaking Aids

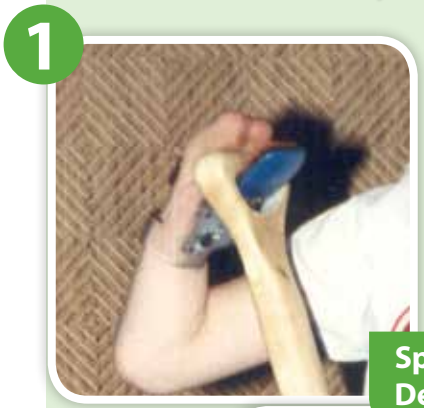
Canoeing and kayaking are popular activities – they provide a good cardiovascular workout in a relaxing environment. Arm amputees can enjoy these pursuits with the aid of a suitable terminal device and with possible minor modifications to the paddle.

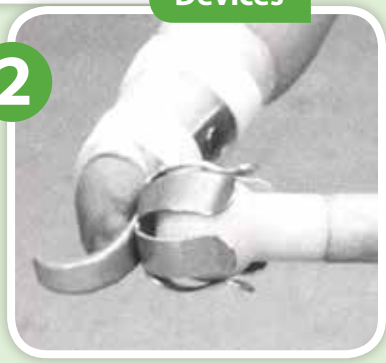
The **GRIP** (for adults) and the **ADEPT** (for children) by TRS Inc. are good examples of suitable terminal devices. Arm movements used when paddling naturally activate the voluntary closing GRIP or ADEPT terminal devices and keep them closed. Locking type terminal devices should never be used in water sports activities.

Partial hand amputees can use a custom-made spatula device which slips into a hole which has been made at the top of the paddle (1) – another example is of a spatula that clips on top of a ball on the end of the paddle (2).

Other modifications can be made to a paddle – by adding rubber rings or flanges – to ensure that the terminal device does not slip. Choosing a lightweight aluminum paddle may also make paddling easier for arm amputees.

The Hammerhead by TRS is designed for kayaking but can be used for other rowing-type water sports. It "feels" like an anatomical hand controlling the paddle and is strong enough for high performance paddling. The quick release handle can be easily grasped to release the Hammerhead in an emergency situation.





A prosthetist fabricated a custom canoeing prosthesis (right) for an amputee who has an elbow disarticulation amputation. The design criteria decided upon by the prosthetist and the amputee included: lightweight; the elbow had to provide resistance to flexion and extension; and the terminal device should be able to rotate and slide along the paddle and have a quick disconnect feature.

A unique solution for the elbow componentry was very imaginative – an **Ottobock 3R95** knee unit (1) was incorporated to act as an elbow in the prosthesis! The knee unit was the most suitable component for the amputee.

The canoeing prosthesis had a custom-made terminal device (2) which is used at the base of the paddle.

This bilateral arm amputee's prosthetist combined a partial hand device and a below elbow device which allows her to achieve her kayaking goals. This design enabled her to become a much stronger paddler.

This amputee worked closely with her prosthetist to fine-tune the design of her kayaking device. The device attaches to a prosthetic socket and can be adjusted to have a loose or tight grip.

Safety First!

- Always wear a lifejacket or PFD (personal flotation device).
- Choose a lifejacket or PFD that is brightly coloured – red, orange or yellow.
- Children should always be accompanied by an adult.
- Make sure someone on shore knows when you are leaving and roughly when they can expect you to return.