

12th Surgical and Anesthesia day
Amputation: when, how and after
Saturday , December 8 , 2012



The Amputation From a Rehabilitation Point of View – Much More Than a Surgical Act

**HANDICAP
INTERNATIONAL**

Eric Weerts
Technical Advisor Physical
Rehabilitation and
emergencies
Handicap International

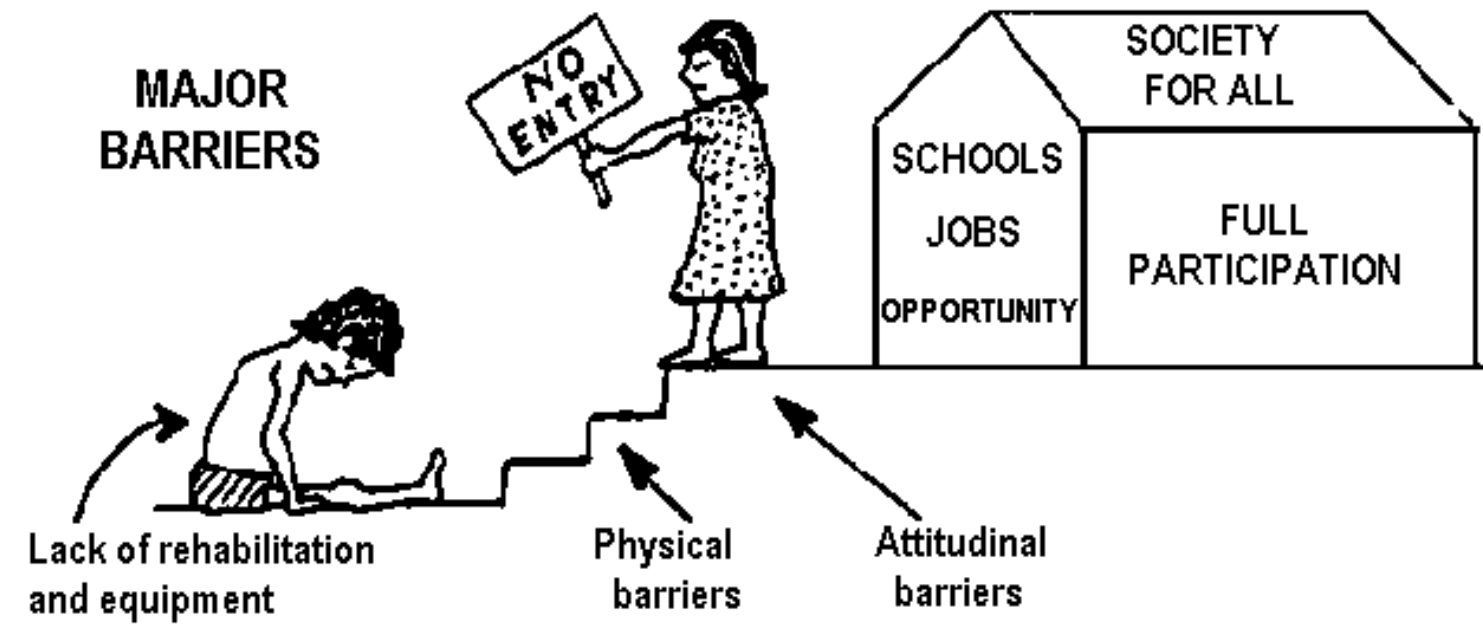
Introduction



Social Model of Disability

Disability is an umbrella term for **impairments, activity limitations and participation restrictions**. Disability is the interaction between individuals with a health condition (e.g. amputation) and personal and environmental factors (e.g. negative attitudes, inaccessible transportation and public buildings, and limited social supports).

WHO - Fact sheet about Disability and Health

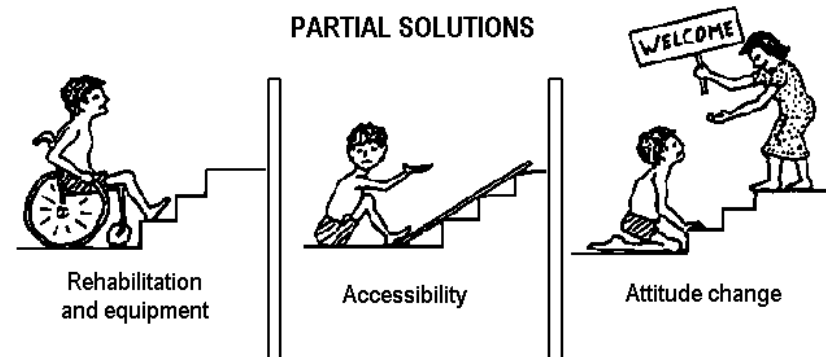


© David Werner

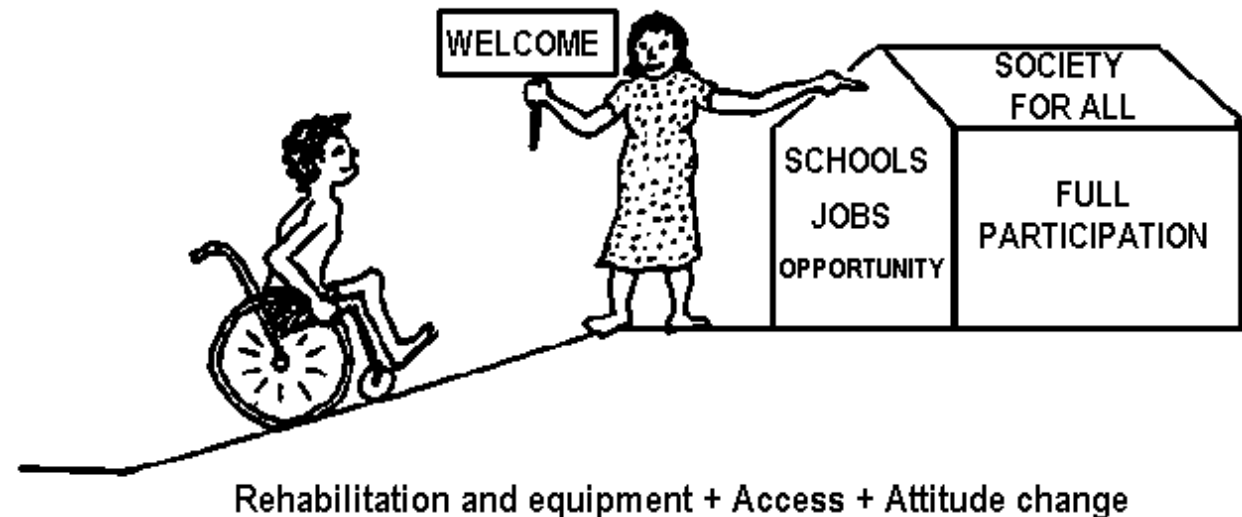
Rehabilitation Process

Rehabilitation = any action taken that aims at preventing disability or, at least, decreasing the level of disability a person faces.

- Physical rehabilitation and equipment
- Accessibility
- Attitude change



INTEGRATED SOLUTION



Rehabilitation Process

Take home message on impact of the Surgical Act on Disability and Rehabilitation process .

Quality of amputation Level of amputation

Rule 1: Appropriate limb length:

- Above Knee (AK), between the middle and distal 1/3 of the thigh;
- Below Knee (BK) : between the distal 1/3 and proximal 1/3 of the leg

Rule 2: Preservation of joint level - As long as rule 1 should be respected, BK is better than AK;

- **Rule 3:** Through-knee amputation is better than AK amputation (even if rule 1 for AK applies), but needs appropriate technological solution in regard to fitting .
- **Rule 4:** Through knee might be better than BK if appropriate BK limb length cannot be ensured
--> very short stump :
 - makes it difficult to control the prosthesis
 - increases energy requirement and consequent tiredness
 - requires stump/knee flexion for fitting
 - impacts on muscle shortening,
 - Changes weight bearing and alignment patterns
 - Impacts on cosmetics options due to necessary choice of exoskeletal fitting needs .

Rule 5: Other factors that need to be taken into account and may influence above 4 rules:

- availability of technology
- expected functional recovery
- influenced of age
- the cause of amputation,
- general conditions of patients, local context...)
- cosmetic and patient's expectations).

Conclusions and Recommendations

- Amputation usually means disability;
- In order to decrease as much as possible the level of disability and to improve the surgery's outputs, medical services should be accompanied with rehabilitation services (*Sphere Standards, WHO 2011 World Report on Disability*);
- Input from rehabilitation should start pre-operatively (level of amputation) and follow-up should be provided until returning home (social inclusion);
- Early rehabilitation is possible, even in emergency situation.



Cooperation MSF – Handicap International

- Ongoing in Haiti – Afghanistan and several others in the making .
- Has potential to extend its scope to other pathologies that have severe functional impact also : SCI , Head Trauma , burn wounds ,...
- Should result in systemizing rehabilitation services towards all medical projects within MSF

Resources and Contact

Resources:

LM Knowlton et al; Consensus Statements Regarding the Multidisciplinary Care of Amputees in Disaster and Complex Emergencies: Report of the 2011 Amputations Following Disasters and Conflict Surgical Working Group. Harvard Humanitarian Initiative; Harvard Action Summit, March 2011.

Special thanks to Mister Didier Demey – technical advisor Handicap International

Contact:

Eric.weerts@handicap.be

Thank you!

