

# **Essential intervention No. 8**

## **Adaptations in activities of daily living**

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## Adaptations in activities of daily living

**A**daptations are changes to the physical environment that enable people to carry out their day-to-day activities – often called activities of daily living (ADL) – despite the difficulties they are experiencing with Buruli ulcer. These adaptations are made using local materials to develop, improve, sustain, or restore the person’s ability to provide their own care in hospital or at home.

Such changes can help the individual to engage in a wide range of meaningful occupations related to self-care, work, play, and education. Not only is this active movement beneficial in reducing oedema, controlling adhesions, and improving joint motion, but it also gives the person a sense of self-control and independence that will reduce feelings of helplessness.

### Some useful adaptations to consider

- Enlarged or modified handles on items such as eating utensils, toys, pencils, keys, exercise equipment, and work tools to facilitate grasping and manipulation.
- Extensions on objects, equipment, and tools to aid reaching when movement is limited.
- Clothing styles with few or no closures – closures can be made simpler by using larger buttons, hooks, or velcro straps.
- Crutches, wheelchairs, and other devices to facilitate mobility.

### KEY OBJECTIVES

- To know why adaptations are used.
- To know when to encourage the use of adaptations.
- To know how to provide the appropriate adaptation and use it safely.

## Special considerations when using adaptations

- Adaptations are used to improve independence and facilitate function.
- Adaptations of exercise and activity are used to improve ROM, strengthen weak muscles, and develop gross and fine motor skills.
- Training in the use of the adaptation can assure that it is used appropriately and that it is modified according to the interest and needs of the person.
- Adaptations can call attention to a person's disability and therefore may not be desired by the person.
- Adaptations should be discontinued when no longer needed.

### REMEMBER

#### Essential interventions to be implemented early

1. Health education and self-care
2. Wound management
3. Oedema control
4. Scar management
5. Positioning and splinting
6. Management of pain
7. Exercise and activity
8. Adaptations in activities of daily living

If an intervention is needed and you are unable to provide it, the affected person should be referred to the closest centre that can provide it. Complex problems requiring complex interventions should be referred to specialized services, and details on this topic are presented in Chapter 7 of this manual. Discuss these situations and difficulties with your supervisor.



A weak or unstable thumb can cause difficulty in picking up things. The use of this splint with a velcro strap facilitates writing and other prehension activities.



Work tools are made safer to hold, and grasp is facilitated, when handles are made larger and softer. Braided cloth and bicycle inner tubing are shown in this picture.



Correctly-fitted crutches allow those in the hospital to walk and participate in ADL.



This young boy does not have crutches, but he has found a stick to use to help him walk around his community.

**Figure 5.8** Adaptations and modifications to prevent disability, and to promote function and independence

### Summary of common problems with indicated interventions

A summary of the common impairments or problems seen in Buruli ulcer is given in the table below, together with treatment objectives and indicated interventions.

**Table 5.8.1**  
Summary of common problems in Buruli ulcer, treatment objectives, and intervention indicated

PROBLEMS	TREATMENT OBJECTIVES	POD INTERVENTION INDICATED
1. SKIN DRYNESS AND COMPLAINTS OF ITCHING	<ul style="list-style-type: none"> <li>• Reduce skin dryness and improve skin flexibility</li> <li>• Prevent skin cracks</li> </ul>	<ul style="list-style-type: none"> <li>• Soak with moist compress for 10–15 minutes and lubricate skin with oil</li> <li>• Inclusion and integration of involved limb in ADL</li> </ul>
2. OEDEMA	<ul style="list-style-type: none"> <li>• Reduce swelling</li> <li>• Reduce pain</li> <li>• Maintain good anti-deformity position</li> <li>• Improve movement</li> </ul>	<ul style="list-style-type: none"> <li>• Elevation</li> <li>• Good posture and positioning during the day and at night</li> <li>• Splinting</li> <li>• Active exercise</li> <li>• Compression</li> <li>• Inclusion and integration of involved limb in ADL</li> </ul>
3. WOUNDS	<ul style="list-style-type: none"> <li>• Manage open wounds adequately to avoid damage to new skin</li> <li>• Prevent infection</li> <li>• Manage pain</li> <li>• Promote wound healing without causing or increasing disability</li> </ul>	<ul style="list-style-type: none"> <li>• Remove old bandages carefully by soaking off adherent bandages with water or saline solution</li> <li>• Clean wound bed thoroughly with saline solution or water. Lightly pressurized water aids cleaning (spray-water hose, syringe, plastic water-bottle with spout, etc.)</li> <li>• Debride necrotic tissue when necessary</li> <li>• Treat infection with systemic antibiotics and rest</li> <li>• Use analgesics when needed</li> <li>• Adequately cover to protect and maintain a moist wound bed (vaseline soaked gauze) and permit function</li> <li>• Use light compression bandages that do not limit function</li> <li>• Adequately position and splint</li> <li>• Carefully massage healed areas and adjacent structures</li> <li>• Active exercise and movement</li> <li>• Inclusion and integration of involved limb in ADL</li> </ul>

PROBLEMS	TREATMENT OBJECTIVES	POD INTERVENTION INDICATED
4. SOFT-TISSUE CONTRACTURES (LIGAMENT, TENDON)	<ul style="list-style-type: none"> <li>• Stretch soft tissues resulting in improved joint range of motion</li> <li>• Prevent deformities</li> </ul>	<ul style="list-style-type: none"> <li>• Moist compress and skin lubrication with oil</li> <li>• Good posture and antideformity positioning during the day and at night (splints)</li> <li>• Non-painful passive mobilization and stretching for 5–20 minutes followed by splinting</li> <li>• Inclusion and integration of involved limb in ADL</li> </ul>
5. JOINT CONTRACTURES	<ul style="list-style-type: none"> <li>• Improve joint range of motion</li> <li>• Stretch muscles</li> <li>• Prevent deformities</li> </ul>	<ul style="list-style-type: none"> <li>• Non-painful passive and active mobilization and stretching</li> <li>• Provide antideformity positioning and/or splints at night</li> </ul>
6. SCARS	<ul style="list-style-type: none"> <li>• Decrease thickness and rigidity of hypertrophic scar</li> <li>• Improve soft tissue flexibility and mobility</li> <li>• Decrease adhesions</li> <li>• Prevent and/or decrease soft tissue and joint contractures</li> <li>• Prevent deformities caused by skin and soft tissue retraction</li> <li>• Improve independence in ADL</li> </ul>	<ul style="list-style-type: none"> <li>• Moist compresses and lubrication of skin with oil</li> <li>• Massage</li> <li>• Compression</li> <li>• Good posture and positioning during the day and at night</li> <li>• Splinting</li> <li>• Active mobilization with or without resistance (exercise and activity)</li> <li>• Inclusion and integration of involved limb in ADL</li> </ul>
7. ADHESIONS	<ul style="list-style-type: none"> <li>• Mobilize skin</li> </ul>	<ul style="list-style-type: none"> <li>• Moist compress and lubricate skin with oil</li> <li>• Massage</li> <li>• Active mobilization of skin</li> <li>• Compression</li> </ul>

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**Table 5.8.1**  
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PROBLEMS	TREATMENT OBJECTIVES	POD INTERVENTION INDICATED
8. FIBROSIS	<ul style="list-style-type: none"> <li>Control the amount of fibrosis</li> </ul>	<ul style="list-style-type: none"> <li>Prevent wound complications</li> <li>Early closure of open wounds</li> <li>Maintain a prolonged stretch to the skin of both open and closed wounds by positioning or splinting 5–20 minutes 3 times during the day and maintain prolonged stretch at night</li> <li>Maintain compression throughout the wound-healing process (approximately 2 years)</li> <li>Limit forceful repetitive movements during the first 2 years of wound healing</li> </ul>
9. PAIN AND SENSORY PROBLEMS	<ul style="list-style-type: none"> <li>Decrease hypersensitivity (pain response) to touch</li> <li>Prevent injuries to skin with sensory loss</li> </ul>	<ul style="list-style-type: none"> <li>Progressive desensitizing exercises</li> <li>Observation and protection of area with sensory loss</li> <li>Inclusion and integration of involved limb in ADL</li> </ul>
10. WEAKNESS	<ul style="list-style-type: none"> <li>Improve strength and endurance</li> </ul>	<ul style="list-style-type: none"> <li>Active exercise and activity</li> <li>Inclusion and integration of involved limb in ADL</li> </ul>
11. PAIN	<ul style="list-style-type: none"> <li>Decrease pain</li> <li>Decrease protective responses that encourage deformity</li> <li>Increase participation in exercises and ADL</li> </ul>	<ul style="list-style-type: none"> <li>Treat cause (antibiotic for infection, elevation for oedema, desensitization exercises for painful sensation to touch, etc.)</li> <li>Use analgesics during extensive wound debridement and when starting exercise and activity programme</li> <li>Exercise and activity which is not forced but adapted for each patient</li> </ul>
12. DIFFICULTIES WITH ADL	<ul style="list-style-type: none"> <li>Increase independence in ADL</li> <li>Improve self-confidence</li> <li>Decrease sense of helplessness</li> </ul>	<ul style="list-style-type: none"> <li>Encourage daily participation in ADL</li> <li>Adapt tools and environment to facilitate ADL</li> <li>Decrease fear and protective responses</li> <li>Psychological support to both patient and family</li> </ul>

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PROBLEMS	TREATMENT OBJECTIVES	POD INTERVENTION INDICATED
13. Poor self-esteem and self-confidence – fear, apathy and depression	<ul style="list-style-type: none"> <li>• Decrease feelings of helplessness</li> <li>• Improve self-esteem and confidence to take ownership of health situation</li> </ul>	<ul style="list-style-type: none"> <li>• Enable patient to do ADL</li> <li>• Enable patient to participate in decisions about treatment and priorities</li> <li>• Combined exercise and activity</li> </ul>
14. Restrictions in participation – stigma and functional ability	<ul style="list-style-type: none"> <li>• Improve functional ability and participation</li> <li>• Enable children to continue their school studies during hospitalization</li> <li>• Reduce stigma</li> </ul>	<ul style="list-style-type: none"> <li>• Educate the community, family, and health workers about the disease, its transmission, and treatment</li> <li>• Improve the patient's ability to actively participate in ADL and make decisions about treatment goals</li> <li>• Adapt environment or tools to facilitate function</li> <li>• Provide education to children in the hospital</li> <li>• Refer to specialized services</li> </ul>

## Review questions

1. When and why should POD interventions be started?
2. How do you know which interventions should be used?
3. What are the most common problems seen in Buruli ulcer programmes that contribute to deformity and disability?
4. What essential interventions can prevent or minimize disability in BU?