

# Strategies for Management of Arms and Shoulders

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STRATEGIES FOR MANAGEMENT OF ARMS AND SHOULDERS was presented at the Eighth International Post-Polio and Independent Living Conference in June, 2000. Below is an edited version of some of the strategies suggested by polio survivors, Brown and Caverly.

- Posture & Alignment
  - To improve function and to minimize stress and pain, keep your arms in good alignment. To keep your arms in proper alignment, good postural alignment of the entire spine and good stabilization of the shoulder girdle muscles is a requirement. In other words, SIT UP STRAIGHT with chest up and shoulders back and down.
  - To have good posture and a stable position of the spine, functional trunk strength is a requirement, so custom seating to support the back while in a seated position, and a custom brace while standing, possibly will be needed.
  - Learn RELAXATION techniques for neck, shoulders, arms, wrists, and hands to avoid fatigue from tension and to prevent unnecessary muscle overuse from muscle stress. Explore a variety of relaxation techniques designed for the resting body, to find one suitable for you. Possibilities include meditation, listening to music, creative visualization, and/or taking a class on stress management. Deep relaxed breathing is essential. (See Lifestyle.)
  - Do a daily stretching routine to maintain good mobility of joints and muscles. If you cannot do these exercises yourself, have someone do them with you.
- Fine Motor/Hand Tasks
  - Make sure your hands are comfortably warm to facilitate improved function and relaxation. Sometimes gloves with the fingertips cut off are helpful.
  - Become more ambidextrous, alternating use of right hand and then left. Do not make the same muscles do everything.
  - Make sure your glasses are adjusted to avoid strain on your neck and shoulders. Remember your postural alignment will shift to enable you to see.
  - When turning pages of a book, use a rubber eraser on a pencil to decrease use of fingertips, or use a mouth wand to eliminate upper extremity (arms, shoulders) demands altogether.
  - Adapt writing implements and other tools, so that your hand is supported and comfortable rather than held in a tight pinched grip or awkward position.
  - When picking up light objects with your hands, mold your hand, using the strength of the palm muscles rather than pinching with the thumb and fingertips.
  - Prevent pressure on the thumb side of your fingers. Using hands incorrectly pushes the fingers away from the thumb into a deforming position. For example, hold purses and bags on the forearm instead of with the fingers.

- To reduce hand strain, use scissors to open packaged foods, letters, and tightly sealed packages.
- For drinking, try using a flexible straw with the cup, can, or bottle resting on a tabletop to avoid a sustained grasp.
- Check the activities of daily living (ADL) section of catalogs such as Sammons Preston or Smith & Nephew for self-help devices for kitchen, bathroom, and other needs. (See [Resources](#).) You will find wonderfully helpful things to make life easier from one-handed potato peelers to bookracks to portable toilet seats to graters on suction cups, etc., etc., etc. Regular stores are starting to carry large handled knives, can openers, jar grabbers, etc. JC Penney and Sears have catalogs for “Special Needs.”
- Lifestyle/Stress Management
  - During rest breaks in mid-morning and mid-afternoon, make sure your arms are resting, too. Holding a book to read while relaxing the body doesn't rest the arms.
  - DELEGATE chores that are too demanding such as vacuuming, mopping, chopping, and gripping. If you have four things to do today, pace yourself to do one in the morning, one in the afternoon, one in the evening, and delegate the fourth.
  - Do deep breathing exercises for relaxation and for increasing the oxygen supply to the tissues. Use ventilatory assistance, if necessary.
  - Eat a healthy well-balanced diet low in animal fat and high in vitamins and minerals from fruits, vegetables, and grains. Add extra high-quality protein for neuromuscular maintenance.
  - Make sure you get plenty of sleep regularly to allow your body to repair itself from any effects of soft tissue micro-trauma.
- Mobility
  - Avoid stairs! Banisters may help lower extremities (legs), but they only strain upper extremities. Use elevators, or escalators, if your balance is good enough.
  - Sit in firm chairs that have sturdy armrests. Avoid “soft” couches, as you will put a great strain on your arms when getting up and down. The one exception to the rule is – if you are on the floor, maneuver yourself to the nearest couch, put your arms up on the couch, and then roll yourself onto it. This procedure is usually easier and safer than trying to rise from the floor.
  - Avoid falls! If you do fall, it does not matter what you hurt, your upper extremities will pay the price. If you hurt a leg, your arms will be stressed by using crutches. If you hurt an arm, you will become more dependent on the other arm, or someone else. Some falls are impossible to avoid, but many can be prevented by using the proper bracing, and by treating medical problems that cause dizziness or balance difficulties. When getting new glasses or trying new medications, be very careful as perceptions and orientation to space may change. Also, avoid falls by keeping your environment safe. Eliminate clutter, stay off slippery floor surfaces, and get rid of all throw rugs. Stay inside on rainy or snowy days. If you have to go out in inclement weather, always carry a small towel to wipe off the bottom of your crutch or cane tips when you go inside.
- Energy Conservation for Shoulders

- When using upper extremities for any activity, take a break at the first sign of fatigue. Do not wait for pain. Take frequent stretch and rest breaks – at least every 15 minutes with any activity.
- When lifting anything, use both hands and hold the object close to your body to decrease stress on shoulders.
- When reading a book, support the arms with pillows or with well-positioned armrests. Prop the book on a slanted reading rack or on a stand.
- Use a headset for telephoning to keep neck straight and to eliminate need for using arms and hands. Get comfortable in a recliner chair or by lying down, and enjoy your chat!
- Alternatives for heavy purses or bags are fanny packs, backpacks, and jackets with large pockets. Leave your purse in your vehicle when shopping. Carry cash, checkbook, or plastic in your pocket.
- Large pockets and belt loops are good places to relax arms when standing; rest arms on a fanny pack at your waist or place arms on top of your head for a few minutes. Pillows are essential for arm support when sitting or lying down. Arms are very heavy, so get rid of their weight by supporting them on whatever is available.
- Avoid unnecessary carrying at home by putting duplicate supplies, such as towels, sheets, and cleaning supplies, in each room where they will be needed. Also, try this strategy at work.
- Eliminate ironing by buying permanent press clothing and by hanging garments on hangers when still partially damp from the dryer. If clothes must be ironed, rotate iron on and off of the garment without picking it up each time.
- Use reachers for picking up light objects off floor or other places. Remember the length of the reacher increases the lever arm, so it puts more stress on the shoulder when lifting. Do not try to lift heavy objects.
- If your legs are a little weaker, and it is getting harder to get up and down, don't strain your arms to get into an upright position. Use pillows in chairs to raise the height of the chair a little or get a chair with a hinge mechanism to lift you part way up out of the chair. (Log on to [www.abledata.com](http://www.abledata.com) or write to [Carol Cox](mailto:Carol.Cox@IPN) at IPN for a listing of select brands of lift chairs and bath lift chairs.)
- Raised toilet seats make getting up and down easier; now there are even adapters to lift up the height of the toilet itself. (See box below.)
- Using a regular toilet in some restrooms is a real challenge; always wait for the handicapped accessible stall. The toilets are higher, there is more space for maneuvering your body, and they have grab bars. These stalls are for “walkers” as well as wheelchair users. Note: Alert the facility to any problems with accessibility in the restroom.
- Get a bathtub seat that can be lowered and raised hydraulically. If your legs are weak, don't try to use your arms alone to get in and out of the tub. Using your arms alone is unsafe and places too much stress on your arms and shoulders. Use a sturdy seat in the shower, so you can relax and enjoy the water.
- Choosing Assistive Devices (Assistive Technology)
  - If you are beginning to need assistive devices for walking, think very carefully about which device you choose and seek the advice of an occupational therapist or physical therapist. The use of canes, crutches,

walkers, and manual wheelchairs may help your legs but will put more demands on your upper extremities. They already have a full-time job.

- If the need for a cane begins to arise because you need extra security with balance, get a cane with an anatomically correct handle. You can get a right-handed or left-handed cane, depending on which side you need support. (The cane usually is in the hand on the stronger side.) Collapsible canes are available for those special occasions when you are feeling a little insecure. A cane with a seat allows you to sit when necessary.
- A better choice, if you are beginning to feel weaker, would be very lightweight forearm crutches. These will be less demanding on the upper extremities than trying to take weight off the legs with a cane that is not secure. If you are having increased hip weakness, you definitely need to obtain forearm crutches, as no brace will help the hips. When standing at rest with forearm crutches, rest forearms on cuffs to relieve stress on hands.
- Be sure you use any lower extremity bracing that may increase your stability and security, as this will decrease the need to depend so much on crutches and canes which in turn will decrease stress on the joints and muscles in the arms. Lower extremity bracing will decrease the chance of falling.
- Walkers are a good choice for assisting weak legs by using your arms. They are usually stable and you can carry other things in baskets or bags that hang on the walker. Also available are wheeled walkers (four wheels) with a seat, tray, and shelf space. They are useful in your home, the mall, or craft fairs.
- For longer distance mobility, you may need wheels. If your arms are really strong, a manual wheelchair may be an option, but again, great demands are placed on your upper extremities. The shoulders, elbows, wrists, and hands are working hard to propel all of you – plus the weight of the wheelchair. If this choice works for you, the wheelchair needs to be very lightweight. The width of the chair needs to be narrow enough to allow your arms to be as close to your body as possible, for better mechanical advantage in propelling the chair.
- To make life a little easier and to decrease the demands on the upper extremities, adding a motor to your wheels makes good sense. There are attachments that can be added to manual wheelchairs to convert them into motorized chairs for short distances. Many brands of motorized scooters are available; choose one according to your needs. Remember, scooters put demands on your upper extremities in that you must be able to steer them. This, in most cases, would be easier than propelling a manual wheelchair. You do need to have fairly good trunk control to stay balanced in the seat of a scooter.
- If your upper extremities and your trunk and lower extremities are all feeling weaker and fatigued, a motorized wheelchair is certainly the least demanding on the upper extremities of any mobility device. Custom seating can be developed to support the spine and upper body in a more stable position allowing the upper extremities to be more functional with less fatigue. Sometimes tendinitis can develop in the thumb and fingers from operating the controls of a motorized wheelchair, so the upper

extremities always have some demand unless you purchase advanced computer technology.

- Technology Challenges
  - If you have joined the folks in the fast lane and are using a computer, the demands on your upper extremities have multiplied many times. The “normal” population is suffering at epidemic proportions from repetitive strain injury (RSI) from many, many hours at the computer. Over 62% of all workplace injuries are now from upper extremity repetitive strain injuries related to computer work. If the “normal” population is having this much trouble with their arms, you, as a polio survivor, need to take your time at the computer very seriously. The computer can do so much for you, but it is tempting to overuse this great technology. **DON'T SACRIFICE YOUR ARMS** in the process.
  - Get an expert in ergonomics (an OT or PT) to set up your workstation.
  - Make sure your chair supports your spine in a neutral position, so that your shoulder girdle and upper extremities are in good alignment. Use well-positioned armrests to support the weight of your arms. Your feet should be supported, using a footstool, if necessary. If you are a wheelchair user, have your workstation designed around your chair.
  - Take a five-minute stretch break at least every 15 minutes with micro-breaks more often. Limit the overall time you spend at the computer to four separate hours per day, depending on your strength/weakness.
  - Consult your ergonomic specialist frequently about any problem that gives you pain or causes fatigue.
- A Final Reminder

If you develop any pain, increased weakness, and/or excessive fatigue in the upper extremities, and reasonable amounts of accommodation and rest do not decrease the symptoms, get a medical evaluation and begin treatment as soon as possible. Many upper extremity problems can be eliminated with proper management, and the sooner the symptoms are addressed, the less risk you face of permanent decrease in upper extremity function. If your doctor does not suggest treatment, such as physical therapy and occupational therapy, **INSIST ON IT**. “Normal” people rarely hesitate to seek medical assistance when pain or weakness occurs in their arms and shoulders. Neither should you, who has much more to lose – your independence.