A few years ago an orthopedic surgeon suggested rotator cuff surgery for me. “You could raise your arms,” he said. He saw the inactivity in my shoulders and wanted to help.

“But I have no serratus,” I replied, remembering how my first polio doctor flattened his hand wide and moved it from my ribs around to and beneath my shoulder blade area to demonstrate the location of this broad muscle. Only when he pushed hard on my scapula, no longer served by the serratus, could I even begin to raise my arm. I understood why I need that muscle.

The orthopedic surgeon looked puzzled for a moment and finally said, “Oh. Then the surgery won’t help you raise your arms.”

He had been thinking of his experience with rotator cuffs, not my experience with muscles.

Herein lies a RED LIGHT! when it comes to polio survivors and certain types of surgery. Let’s say I have a problem I can see is getting worse. I don’t want to lose function. I want desperately to be put back together again, maybe even to become “the way I used to be.” I know that surgeons want equally as much to help their patients, to bring a missing quality back to their lives. Here’s the important part: I cannot allow my thought process to stop here, or I might find myself in deep trouble.

Function cannot always be restored. This is hard for some to swallow. How can we be sure we are not allowing our desire to be made whole again to lead us to believe an uninformed surgeon can make our dreams come true? What risks are involved? Sometimes we simply need to put our common sense to work and make sure we’re dealing with reality.

A Surgery Story

A 40-year polio survivor in her fifties wore a full leg brace on her left leg. Her right leg had a slight recurvation (bowing back from the knee down) problem, but did not require a brace. That leg worked well when she walked, climbed stairs, got up from the floor.

The head of orthopedic surgery in a teaching hospital examined her and proposed surgery in the right leg. He said he could correct the bent-leg condition and also wanted to transplant a hamstring in that leg to the quad, which he said would result in strengthening the quad to give more mobility. He saw this as a bonus to the recurvatum surgery and said, “I can make that leg stronger and prevent recurvatum from happening again.”

RED LIGHT! “I didn’t know if the recurvatum would be a problem later on as the doc said it would be,” says the woman. “The doc said he could

continued, page 6
keep the condition from becoming worse, and I believed him. He had studied with a Warm Springs doctor, and this helped convince me that he knew what he proposed would work. He did not warn me of any consequences – everything was positive. I simply trusted him.”

Results
After a much longer recovery time than anticipated, the transplant didn't work. Nobody had checked the strength of the hamstring, which got worse, not better, and thus did not provide mobility to the quad. The woman can no longer bend that right knee back, requiring a locked full-leg brace for walking. She can't use steps as she did before, or get up if she falls down. She can't drive a car without hand controls, and balance problems make it difficult to get into a car on the passenger side.

RED LIGHT!
“Today I know a good physical therapist should have checked the muscle strength before the surgery,” says the woman. “I wasn’t aware enough to realize this was something I could have taken care of myself.”

The recurvatum surgery left her with a pin improperly placed below the knee. Nerves to the right ankle were cut accidentally so she can no longer move her right foot to the right or lift it up, essentially giving her a drop foot. The necessity for using two full-leg braces put a bigger burden on her shoulders and arms, causing them to deteriorate more quickly.”

Emotional Implications
“This surgery essentially left me with a second disability,” she says. “It prevented me from doing activities that I had done before.

“I am more angry now than I was at the time of the surgery, because I realize the gravity of what actually happened to me. It has to do with independence – the fear of becoming dependent.

“When I had one good leg, I had much better balance. Now I use a powerchair because doctors have determined I should not add to my shoulders’ task by using crutches.”

RED LIGHT! “The surgery presented a lot more of a risk than I imagined. I'm disgusted with myself for not investigating more thoroughly. I guess the idea of having a ‘normal’ leg again swept away my reasoning powers,” the woman concluded.

Using Common Sense
Avoiding RED LIGHTS becomes an important step in any surgery decision. Here are some tips to consider.

REHABILITATION
- Be sure surgery is necessary, that it’s the best answer. Therapists with post-polio training, among others, can frequently devise ways of dealing with situations that preclude surgery. Pain can often be alleviated by physical therapy, exercise, learning not to overdo, or bracing. These methods can be much less complicated, expensive and chancy. Even accepted alternative medicine approaches (such as acupuncture, massage, Yoga) may be encouraged by doctors, allowing both disciplines to work successfully together. Try the easy route first.
- Get rehab people lined up before the surgery. Have them determine your muscle strength/capability. Discuss the working of involved muscles with them and get their professional judgment of how the proposed surgery will affect those muscles.
Share their findings with your surgeon as you plan for the surgery.

- Discuss future needs with rehab experts. Can you count on certain muscles to behave the way you anticipate during recovery? Will your arm be able to aid in transferring the way you expect? Should you have additional equipment on hand for moving around, for bathroom activities, for other daily tasks and desires?

**DOCTORS**

- Find the right doctor. Ask lots of questions. How many surgeries has he done that are similar to the one proposed? Is she qualified to work with the vagaries of polio muscles/bodies? Are you convinced this surgery involves doing something that can be done? Are you listening with an inquisitive mind, looking for down-to-earth solutions?

- Get a second opinion from an expert not affiliated with your doctor. A little more caution can put minds at ease when making important decisions.

**ANESTHESIA**

- Talk to your anesthesiologist well ahead of the surgery about your specific post-polio anesthesia issues — what to watch for, what to avoid, what to do. A detailed respiratory evaluation is very important. Consider, for example, that polio survivors may have an altered sensitivity to induction drugs, maintenance agents, muscle relaxants and opioids. Doctors should consider carefully the dosage of whatever they’re using initially to prevent intraoperative overdosing.

- Discuss post-operative pain with the anesthesiologists. Bring up that using local anesthesia at the incision plus patient controlled analgesia may be one way to prevent pain. Increased vigilance during the post-operative period is appropriate and “fast-tracking” a transfer from the operating room to a ward should be avoided.

- Realize it’s possible for anesthetics to cause such temporary problems as gastroesophageal reflux, tachyarrhythmias, and even maintaining blood pressure. Anesthesiologists should be made aware of upper airway and swallowing difficulties, and risk of aspiration. Special care must be taken so that affected limbs are carefully positioned and not fractured. Blankets and warming devices are needed due to cold intolerance. Talk about these issues. Have your doctor arrange for you to have the same anesthesiologist you consulted.

**IN ADDITION**

- If possible choose a hospital that uses a team approach. Doctors, therapists, technicians and counselors planning together, coordinating their efforts, are more likely to make your experience smooth and successful.

- Do your research. Use the Internet and other reliable resources for sound suggestions and explanations.

Unfortunately we have no definitive list of surgical procedures that always work well for polio survivors – nor do we have one for dreamers to avoid. But we can learn to take precautions that leave us glad we spent the time to check things out.

I got lucky 19 years ago when I needed truly challenging spine surgery. Fate stepped into my life and sent a brilliant doctor to watch over me. I felt totally safe. I knew this was right for me.

It isn't always this way. Sometimes I find myself stuck with a doctor who simply is not interested in looking into unfamiliar polio territory. That’s when it’s time to move on, find another doctor, search for better answers. Maybe I need the surgery, maybe not. Mainly what I need is to play it smart.