

RECOVERING FROM ADR SURGERY:

ONE PATIENT'S HOLISTIC PERSPECTIVE

Returning to Life or "Wiedergeburt"

Congratulations on your acceptance of a marvelous biomedical innovation that has helped you reclaim your life! This informal paper is designed to help you think about the many aspects of recovering from an artificial disc replacement (ADR) procedure and to prepare you for the critical days of healing while at home. The helpful tips herein are not based on scientific evidence per se, but rather on the author's experience and communications with patients from around the world.

This paper illuminates a few of the many recovery options available to patients to help them heal quickly and comfortably. While there are different opinions regarding recovery and healing, an examination of the varied practices and globalization¹ of ADR may help patients be more mindful of issues and enable informed decisions about their healing options. It is assumed that readers have had a successful procedure; this paper is geared towards patients that have had an anterior lumbar operation.

Leaving the Hospital or "Krankenhaus"

The length of your stay in the hospital depends on many factors. What was your health like going into surgery? Did you eat nutritious foods and have a low body mass index? Were you psychologically ready? How complex was the procedure, and how long were you under anesthesia? There are literally dozens of factors to consider. Accordingly, the length of hospital stays vary considerably and range from two days to two weeks, but typical stays are three to five days in the United States.

When you are discharged from the hospital, the nursing staff will provide you with instructions and guidelines to help you manage your care. Most documents are reasonably comprehensive and include considerations such as:

Physical activity guidelines: proper body mechanics, lifting, sitting, walking, swimming, housework, driving, sleeping and sex.

Care instructions: recommended activity levels, restrictions, wound care, diet, medication instructions and emergency contact information for unexpected problems that may arise.

These documents are extremely helpful and important, so read them carefully and read them often. Your first few days back home may leave your head spinning, so ask your spouse or caretaker to read them with you to ensure that you *both* understand the gravity of these important directives. However, the hospital cannot extend their care outside their walls, so patients may want to consider a few more issues for the voyage home that you should have already accounted for:

- How are you getting home? Did someone commit to taking you home at a moment's notice? Is the car that you will be taking comfortable and safe? If you

¹ ADR procedures have been performed in Europe since the 1980s and in the U.S. since 1999. At this writing, patients have observed differences in post-operative treatments for ADR patients within the U.S. and especially between U.S. and German ADR post-op therapies.

can influence your discharge time, can you leave at a time when it is not rush hour?

- Were you given all the things from the nurse that you will need for your home recovery? E.g., prescriptions for medication, bandages, instructions, contact numbers, etc.?
- Is there someone at home who can assist you 24 by 7 until you can ambulate freely and independently?

These are representative of many other issues that patients must manage as part of the surgical planning process. But like many “projects,” some details are overlooked and things may not go perfectly. But take heart – you survived and you are heading home.

Being at Home or “Zu Hause”

By now, you learned that there are certain body positions and movements that are strictly prohibited. Twisting, back arching or bending are “verboten” as they may stress your new spinal joint. So be careful when entering, exiting any vehicle; and obviously be careful whenever you change positions. Did they teach you how to “barrel roll” in this hospital? You must learn these basics to ensure the proper healing of your new lumbar spine, and above all -- take things slow and easy. Listen to your body and never overexert yourself.²

Proper posture is critical for everyone, but especially for someone who has just had surgery. While you incision and swelling will create abnormal tension in your abdomen, carefully adjust to your new body height (your height just gained ½ an inch or more) by standing and sitting straight. Your postural movements and shifts should be gradual and slow, never jerky.

Remember, it is the tortoise that wins the race – not the hare. Slow and steady wins the race ...

Setting Reasonable Expectations

Every patient is different and will heal at their individual rate. When comparing your progress with other ADR patients, be careful not to obsess about comparative differences. In fact, it may be prudent to only measure your own progress against your own expectations. The cliché “take one day at a time” works nicely. However, there are ways to be smart about gauging your own progress. For example, patients may want to measure their waist (the navel is a good place for most patients, as this is often the most swollen area) initially, then every day thereafter to measure the amount of daily reduction in swelling.

There are many ways to help you feel good about your daily progress. Here are a few more tips:

- It is important to benchmark your progress from the first day forward, and if you have not started a journal yet, now is a good time to do so!

² Read an excellent article about recovering at home and getting carefully restarted with home activities, “Conserving Energy During Recovery,” see: <http://www.spineuniverse.com/displayarticle.php/article1527.html>

- Get up carefully and walk as often as you can. Even if you are moving slowly, being in an upright position will help you tremendously; e.g. settling your new spine and prosthesis, exerting natural gravity on your intestinal tract and working muscles that your body may have forgotten!
- Ensure you have comfortable places to sit, relax or lay down. If you did not plan for this already, ask for help to get “correctly comfortable.”

“Hospital Gifts”

When a patient is anesthetized for the ADR procedure, they are intubated. This is defined as the insertion of a tube down the windpipe for artificial respiration. Accordingly, you may have a sore or scratchy throat for four to seven days after surgery. Do not panic – it is normal to have this feeling!

A more worrisome possible outcome from your hospital stay is infection. A commonly found parasitic bacterium, staph is the most common infection and can invade internally or externally. If it appears externally, it looks like a red rash or a bit like poison ivy. It may respond well to anti-itch creams or antibiotic ointments; most will go away after ten to fourteen days.³

Wound Care

Once situated comfortably at home, carefully inspect your incision. Acquire a sense of its appearance and color. It’s important that you visually “benchmark” how it looks so you can assess and track your healing progress. Most U.S. hospitals use sutures that dissolve while healing and use Steri-strips to add protection,⁴ but techniques vary according to the doctors’ preferences.

Wound care is a separate subject beyond the scope of this paper, but patients must be aware of the warning signs of any incision healing complications, including: increased redness or swelling, discharge of any kind or any sub-dermal lumps that form. Day by day, you should expect to see progress as the scar heals. Be careful not to stretch or move in any way that exerts too much tension on the incision, as this will inhibit both internal and external healing. You will receive from directions from the hospital about daily cleaning and bandaging. Here are a few other helpful hints on wound care:

- Always keep your incision clean and dry and keep the bandage applied for at least the first two weeks. The standard issue 4 by 6 inch bandage also protects the incision from excess tension from bending or stretching; it also protects it from waist band abrasion. You will be given special wraps to waterproof your incision when showering.
- If you see any abnormality or unexpected change in your incision, call your doctor immediately.
- Do not “play doctor” with your incision. In other words, do not pick, clean or swab it – just let nature take its course.

³ Some new strains of staph are dangerous as the prevalence of antibiotics is creating “tougher” strains of bacteria. For more information on staph, search the web for numerous references.

⁴ Advice will vary as to the best time to remove the Steri-strips, ranging from five to fourteen days. If you get conflicting advice, wait at least seven days before removal. If possible, get someone to help with the removal and incision inspection.

Diet and Nutrition

Ease into a diet that your spouse or caretaker will prepare for you in the first few days. Though your body may be slightly malnourished, you should start with light, easily digested meals to help your gastrointestinal tract adjust and even “wake up.” If you have not had the luxury of a bowel movement yet, you may want to consider taking a mild laxative (like Dulcolax) with certain foods or drinks that stimulate peristalsis of the digestive tract. For example, drink some prune juice in the morning, followed by hot (sugared) coffee.

If you are tempted to have large meals in the first few days, that may be a good sign of a healthy appetite; but hold back and opt for lighter meals. Choose meals that are rich in natural nutrients, especially B complex vitamins that help convert proteins into bone.⁵ And eat foods from a wide range of food groups to ensure you are ingesting all the vitamins and minerals your body needs to heal.

There are myriad sources of additional information for a healthy post-op diet available on the Internet. However, here are a few other ideas to consider:

- Drink little or no alcohol and definitely do not smoke.
- Get familiar with appropriate nutraceutical products, e.g. pre and probiotics for good intestinal health (favorites are yogurt with fresh fruit, Odwalla Superfood)⁶. Yogurt cultures replenish needed (good) bacteria in the intestinal tract that may be eradicated by antibiotics!
- Calcium and Vitamin D are important to maintaining bone health. As you age, minerals in your bones are lost. Calcium-rich foods include milk, cheese, yogurt, greens, broccoli, sardines, salmon, beans, peas and tofu. Calcium absorption from low-oxalate vegetables (kale, broccoli, collard greens) is as good as it is from milk.
- Vitamin D helps the absorption of calcium. It is found in fortified drinks, dried milk and cereals and especially in cod liver oil. In addition, your body metabolizes Vitamin D when your skin is exposed to the sunshine. Recent studies also suggest other health benefits associated with sunshine.⁷
- Consider a natural fiber-rich diet for intestinal cleansing; oranges, bananas, oatmeal and bran are excellent choices. But be careful -- wait until your “tract is back on track!”
- Drink lots of clean water to clean out your system. Rather than drink copious amounts once or twice a day, drink it all day long in smaller quantities.
- Depend on natural and fresh foods from a wide range of food groups to obtain your vitamins and minerals.

⁵ See “Nutrition Facts and Fallacies,” at: <http://www.spineuniverse.com/displayarticle.php/article1140.html>

⁶ See the author’s Blog for a “book report” that explores the healthy ingredients of Odwalla Superfood juice at: <http://coolyuppiethings.blogspot.com/>

⁷ See “Lack of Vitamin D Linked to Pain,” at: <http://my.webmd.com/content/article/78/95751.htm>

Dietary Supplements and Painkillers

The instructions you received from the hospital probably advised against NSAIDs,⁸ as they are proven to inhibit bone growth. Painkillers to alleviate your discomfort may be necessary, but remember it may be difficult to wean yourself from them because of psychological and physiological dependencies. Moreover, drugs are very complex bio-chemically and may interfere with your recovery, so ensure that you fully understand all the implications of your painkillers. If you are lucky, you will not need any after your hospital discharge. Here are a few other ideas to consider:

- Take multi-vitamins as supplements, not as elixirs! For example, glucosamine chondroitin continues to be a controversial supplement to aid bone growth. Your best bet is to eat healthy nutritious meals rather than depend on any supplements!
- If you have health insurance, consider seeing a medical professional who can counsel you on painkillers. E.g., some doctors have expertise in nutrition and pharmacology; they can specifically help you optimize your diet while developing a plan to reduce your dependence on painkillers.

Physical Exercise

Always follow strict guidelines from doctor and hospital -- if there are any questions, seek advice immediately from a qualified medical professional. Walking is highly recommended, but start slowly and only go short distances the first week. Work on refining your posture, symmetry and walking tall. Remember, you have a new spine; so now is the time to start anew with proper habits!

The first few days you may feel that your posture is constricted by the incision. This is perfectly normal, especially considering the trauma inflicted on your abdomen and spine. As you try to stand and walk more erectly, do so carefully and gradually. As you stand taller, you will feel the muscles and skin around the incision area resist – so do not overdo it. As you heal, you will acquire a sense of balance between healthy body posture and normalized muscle “symmetry” in your abdomen. It is important that you find this balance point, as you must return to this “magical” position – for the rest of your life. This “spine neutral” position is where every joint is held in an optimal position to allow an equal distribution of force through the entire spinal structure.

Breathing and “inner work” is essential for an effective recovery. What is inner work and how can it help one heal? It is safe breathing method to stretch and massage muscles, ligaments, organs and connective tissues that are affected by surgery. Exemplary methods to help with this inner healing process are found in Tai Chi and Qigong.

“Breathe the old out and the new in.”

- Adage of Taoist Breathing Practices

A form of Tai Chi called QiGong “works with life energy” to improve ones health. Basic Tai Chi movements are amazingly helpful; while Qigong may be easier for ADR patients as there is an emphasis on deep breathing and gentle stretching movements. The basic

⁸ Non Steroidal Anti-inflammatory Drugs are composed of various classes of drugs. Their classification, bio-chemical structure and efficacy vary considerably. See the author’s note and Q & A with a doctor athlete at: <http://coolyuppiethings.blogspot.com/>

practices are relatively easy to learn and perform and you can do them any time, anywhere. Here are a few more tips to consider regarding physical exercise:

- When walking, ask someone to carefully watch your stride. Is it symmetrical? Are you standing tall and in a spine-neutral position? Does the gait appear normal, healthy and relaxed? Record these observations in your journal and share them with the physical therapist.
- If you are not comfortable with the idea of learning QiGong, that is fine. However, make an effort to learn deep breathing exercises that can help you heal from the “inside out.”⁹ Deep breathing is especially helpful when combined with stretching!

Physical Therapy

Every patient’s recovery is unique and healing rates will vary considerably. Accordingly, medical professionals will decide when you are ready to start physical therapy. However, most people (patients and doctors) agree that starting therapy too soon may be dangerous; some patients will start at least four weeks from surgery. Many patients start six weeks from their surgery date.

Due to the invasiveness and complexity of ADR, it is important to find an experienced physical therapist that is trained to work with ADR patients. It may not be easy to locate a therapist with ADR experience, but it is worth trying! In addition, here are some points to consider for preparing for physical therapy:

- Prepare for your 1st visit by recording your priority questions to discuss with the therapist. Some therapists may want to read your historical PT records.
- Recognize that physical therapy guidelines vary slightly among different therapists, but especially geography. For example, European therapy programs may differ considerably from U.S. programs. Many patients that opt for ADR in Europe are given back braces to wear as “standard operating procedure,” while in the U.S. it is less common. Ask both your doctor and your therapist about this issue.
- Do not attempt *any* therapeutic exercises without express consent from a licensed professional. Also ensure that you know how to perform them properly.
- Inquire about your therapist’s knowledge of scar healing, e.g. ultrasound, scar massage, abdominal massage and of course spinal massage. Also inquire about aqua therapy and the use of Jacuzzis. You may not be ready for either – so ask!
- Ensure you work closely with your therapist to develop personalized physical rehabilitation goals for daily, weekly and monthly benchmarking.

Lovemaking

The first several weeks, most patients will focus on healing. However, some will find their libido is robust even after a few short weeks and may want to return to their love life. A patient must recall the invasiveness of the procedure to realize the potential threat to

⁹ An excellent book that offers a comprehensive look at Qigong is “The Way of Qigong, The Art and Science of Chinese Energy Healing” by Kenneth Cohen. First time readers will learn that their abdominal incision is located at a critical energy center called Dan Tian.

delicate nerves in the abdominal area. Some nerves that transmit sensations for sexual arousal may be disturbed and affected; other affected nerves may interfere with the male ejaculation process. This “retrograde ejaculation” is harmless, but may detract slightly from the sensation a male will experience during lovemaking. It will affect your fertility, so ask your doctor. You should have already discussed this issue in detail with your doctor before the procedure.¹⁰ A few more considerations concerning your return to lovemaking:

- Be patient! Your incision, abdominal muscles and entire body need time to heal.
- If you are unhappy with your progress as it relates to your sexual health, discuss it with your spouse or partner. If you have medical concerns, talk to your doctor who may refer you to a urologist for a consultative assessment.
- Some men do experience retrograde ejaculation after ADR surgery. Many men find that its effects disappear over time -- some at six months, some longer. In some cases, medication may resolve the problem.

Psychological and Spiritual Support

People that have suffered through back pain that have also suffered great psychological burdens, so it is only natural to hope and pray for a successful surgical outcome. The human body is remarkably complex, so one must not be discouraged if healthful results are not immediate. Many ADR patients take six or nine months to see a substantial improvement in health and in pain reduction; still others suggest that the two-year benchmark is better indicator of ADR effectiveness. Here are a few more tips to consider for ensuring your well-being during recovery:

- If you need help in any way, find a way to get an answer! Your support system may be bigger than you think! It may include: your spouse, medical professionals, family, friends, caretakers, church or synagogue devotees and even specialized forums within the Internet community.
- It is never too late to renew your faith in God, give thanks to Him as well as all the people that have helped you in difficult times. Take the time to express *and* show your thanks to all that have helped you heal. Even the act of thanking may be cathartic for you!

"Be careful never to become discouraged when you are surrounded by difficulty or infirmity. If you are experiencing some weakness, God is not abandoning you, but offering you the opportunity to grow in humility and gratitude."

- Padre Pio of Pietrelcina

Final Words of Wisdom

This paper is informal and subjective but is intended to be reasonably comprehensive. So how can anyone expect to acquire a holistic perspective of ADR from one individual? One cannot, which is why collective learning, communicating and sharing is so helpful for anyone considering ADR!

¹⁰ For more information on retrograde ejaculation, see <http://www.intelihealth.com/IH/ihtIH/WSIHW000/9339/10523.html>

The Internet is a great medium for helping people connect and share ideas and even help other people. The author was lucky to find the many “spineys” that congregate at ADRSupport.org, which provides support to back sufferers from all over the world. It only fitting to conclude with pearls of wisdom from a few frequent contributors to the ADR:

- “I would not recommend PT right away because of too many cases I have heard regarding re-injury. Walking appr. 1-2 miles a day when you are about 2 weeks post-op is good. I have been doing this up to 6 weeks so far now.”
- “Prior to surgery, make sure that your house is ready for you when you get back - such as grabbers to pick stuff off of the floor, arrange a place to rest other than your bed. I recently bought an Anti-gravity chair and wish I had this chair waiting on me when I got home. Have the house cleaned before you leave for surgery. If you need to prepare meals ahead of time and put them in the freezer for when you get back. Make sure you have all of your medications at home that you will need.”

About the Author

Richard Longland was active in sports (biking, mountain biking, tennis) until two falls in the winter of 2003. The trauma to the lumbar area accelerated the degeneration to L5-S1 and forced him to leave his marketing director position in October 2003. He spent months seeking medical opinions, performing research and communicating with patients throughout North America. He canceled a lumbar fusion procedure and opted for artificial disc replacement performed by the Boston Spine Group at New England Baptist Hospital in June of 2004. He was discharged one day after surgery, did not require any painkillers and did not suffer from any pain other than incision discomfort. His return to health is miraculous.

Richard resides in Woburn, Massachusetts and is creating a non-profit foundation to assist ADR patients in their pre and post-op care. One of the foundation’s goals is to match and assign an experienced guide to the patient to help them navigate the complicated process of ADR – from discovery to recovery.

If you are an experienced ADR patient and can assist other patients by volunteering your time and expertise, please e-mail the author at info@adrsupport.org.

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