



### **Mark S. Sanders, MD FACS**

Certified by the American Board of Orthopaedic Surgery  
Certificate of Added Qualification in Orthopaedic Sports Medicine  
Arthroscopy Association of North America  
American Orthopaedic Foot and Ankle Society  
Fellow of the American Academy of Orthopaedic Surgeons  
Fellow of the American College of Surgeons

## **THE NINETEEN COMMANDMENTS OF HOW TO SURVIVE AFTER SURGERY**

**1. Thou shall stay calm and be patient.** Orthopaedic surgery involves the synchronous services of many individuals. These individuals include, but are not limited to, an Orthopaedic surgeon, an anesthesiologist and/or a Certified Nurse Anesthetist, two Registered nurses, an assistant surgeon or licensed surgical assistant, one or two surgical technicians, many times a technical surgical equipment representative, and finally a patient. Any delay in the arrival of any of the aforementioned individuals will delay the start of the procedure. These delays occur because earlier surgical procedures, even performed by a different surgeon, at a different institution may take longer than expected, and, particularly in Orthopaedic Surgery, compound fractures take precedence over elective surgery. Any operation that is not started at 7:30 AM can be expected to be delayed one to three hours on average. It's a lot like flying from Houston to Dallas on a rainy summer day. The flight only takes a short time but you can wait all day on the tarmac before the flight is given clearance to take off. Since it is not considered good medical practice to offer sedatives prior to a short time before a patient is brought into the operating room, we recommend that patients should expect a considerable delay and bring a good book or laptop with them to help kill the time.

**Visits to the clinic also take up time.** Usually there are other patients there, and often times a wait in the X-ray department. If that's not bad enough, Doc sometimes seems so busy that you may not think you have had enough time for him to answer all your questions. However, all your questions are important and they need to be addressed. **Doc's cell phone is 713-907-6076.** His personal email is [sandersclinic@comcast.net](mailto:sandersclinic@comcast.net) You are more than welcome to call or email him at any time regarding the questions relating to your condition or surgery that you forgot to bring up or weren't clear on during the Clinic visit. Administrative questions are best handled by Michelle or office staff. For billing questions call our billing office at 713-622-3576.

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**2. Thou shalt stay calm and be brave.** Issues come up from time to time. They are always quickly resolved. Over 95% of our patients will ultimately enjoy results rated good or excellent, with the vast majority rated as excellent.

**3. Thou shalt limit your activities.** Those who have had knee surgeries are best to spend the majority of their time in bed with the knee straight and a pillow under their heel, and NOTHING BUT AIR under the knee, elevating the foot 8 inches (measure with a ruler) above their heart. **Dave, one of our rider/patients from Colorado came up with a great idea after we did his second ACL reconstruction. He said to put the mattress on the floor and position the coffee table at the foot of the bed. This way the heels can rest on a pillow placed on the coffee table. That will certainly keep the limbs elevated and the knee straight.**

Those that have had **shoulder** surgery will be most comfortable sitting up as much as possible. An operated **hand or foot** should be elevated 8 inches above the heart. In the early periods **after upper extremity surgery, no lifting, pushing, or carrying of anything heavier than a Coke can in that hand is allowed until you are instructed to start doing more.**

**4. Thou shalt do the exercises.** Those that have had **knee surgery** need to do the simple cannonball exercises that they have been instructed to do. They should be done five times during the five minutes every hour that the water/ice in the Cryocuff or ice bags is being changed during the hours that you are awake. Those that have had **shoulder surgery** can just chill as far as exercises are concerned the first night. Those that have had **hand surgery** need to make a full fist and release as much as possible. If you received specific instructions not listed here please follow those instructions.

**5. Thou shalt not fear blood. Expect bloody drainage through the dressings. Sometimes it looks like a lot of blood and can frighten the uninitiated.** Do not change them. Leave them alone. The purpose of the dressing is to absorb the blood that comes out over the first few days. Blood that is in the dressing is far better than blood that remains inside the tissues which will lead to excessive swelling, stiffness, bruising, and pain. Remember Commandment number 2.

**6. Thou shalt drink Gatorade or a sports drink until your urine is clear.** Keep drinking it so it stays clear. Surgical patients have fasted for at least 8 hours before surgery, and then rarely feel well enough to eat a lot after surgery. Gatorade will supply the water, sugar, and salt that is necessary to sustain vital body functions.

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**7. Thou shalt keep it cold.** You will have purchased either a Cryocuff icing system or ice packs. Use them 55 minutes on the hour, utilizing the other five minutes for exercises while the water is being changed. Bags of Frozen peas from the grocery store can be used as cold packs. They will stay cold longer than ice and can be refrozen and used again.

**8. Thou shalt take the pain medicine as necessary and directed, but in the end, you are in charge. Several different non narcotic pain medications have been prescribed. This is called multimodal pain management and they are to be taken as directed on the bottle, and NOT on the as needed basis. We recognized that there seem to be a large number of medicines. Sometime soon, Industry will combine them into one or two pills. These are preemptive medicines for pain relief.** The narcotic medicines are another story, all together. Enough of these pain medications must be taken so you can do the prescribed exercises. Too much medication and you will be too sleepy or nauseous to do what you have to do. ***Worse yet is constipation.*** Lots of folks say its worse than the post op pain. A daily stool softener can help prevent constipation. We recommend that patients take no more than six-eight pain pills of any kind per day. Take as prescribed by your doctor. If the pain is not too severe, you should take one Tylenol and one narcotic pain pill. If the pain is mild to moderate, try two Tylenol and skip the dope. For severe pain, then there is no choice but to take two narcotic pain pills, but expect the nausea, fever, or constipation. When the constipation occurs, you need to cut down on the narcotics and take an over the counter laxative. (Everyone or their Mother seems to have their favorite. On which one to take, I have no opinion). Beyond the anti inflammatories that are prescribed for the initial postoperative period, patients should avoid Advil, ibuprofen, and other anti inflammatories because it interferes with blood coagulation, ligament, and bone healing.

**9. Thou shalt expect to have a temperature above normal.** This is from blood in the tissues, as a consequence of anesthesia, or resultant from dehydration. Dehydration is addressed in Commandment 6. Coughing, deep breathing, and blowing up balloons will allow the lungs to fully expand and resolve post anesthesia issues. Tylenol will also bring the temperature down to normal. After a few days, expect some warmth and redness around the wounds. That comes about from the extra blood supply that the skin gets in order to mount the healing response.

**10. Thou shalt not miss your first follow-up or PT appointment.** Call the office for an appointment. These parts have to start moving. Leave an operated joint alone and don't move it for a few days, and its gets very, very stiff. This is totally avoidable.

**11. Thou shalt stay at home or in your hotel room.** Out of town knee surgery or ACL patients especially should stay in their hotel rooms and not visit the local tourist attractions or the local mall. If what you think is a problem with your surgery, do not visit Emergency Rooms unless I tell you to meet me there. This occurs in less than 1 in 200 surgical cases. The health care professionals there have no idea what you had done, or how to manage post operative issues. **I personally answer my cellular phone 24/7. The number is 713.907.6076** if issues come up that have not been explained clearly in this document, do not hesitate to call.

**12. Cleanliness if next to Godliness.** Those patients who are not given an appointment for the next day shall remove the surgical dressing after twenty four hours. ***You must purchase Hibiclens and an antibiotic ointment in the drugstore.***

**Caring for your surgical wound:** Dilute the Hibiclens 50-50 with water and place this diluted solution in a water bottle, such as one you would take with you on a bike ride. Use this solution as a body wash twice per day. Wash the wounds first, and then wash the rest of your body with this diluted solution. Conserve the solution by using a wash rag, or you will use ten dollars worth of Hibiclens with each shower. **After the shower,** apply antibiotic ointment to the wounds. **24 hours after surgery,** a dressing is only necessary to prevent the greasy ointment or bloody drainage (which will last for five to seven days) from staining your clothes. Do not reuse any sheet, towels, or pillowcases during the first ten days. Prior to your surgery, you have undergone a screening examination of the nose for MRSA, the resistant Staphylococcus germ. If you don't carry it, then that's fine. If you do or we can't be sure that you don't, we will prescribe Mupirocin (also known as Bactroban) to be applied to the inside of your nose two times per day for ten days. Since folks usually infect themselves by scratching their nose, and then their surgical area, this should decrease the incidence of infection. **Some patients will have had an Aquacel dressing placed. The Aquacel is a huge Band-Aid that is impregnated with Silver, a potent deterrent to bacterial growth. The Aquacel dressing is to be kept on, and not removed for seven days. Do not be concerned if you see blood accumulating underneath this dressing. It is designed to absorb the bloody drainage. You can shower with this dressing on, but when towelng off, just pat it dry. Within a few months most patients will have had this dressing placed.**

**13. Thou shalt remember that bone is living tissue with calcium.** Every post op patient needs a high protein diet to bring nutrients into the healing area. Every patient who has had bone work, such as fracture surgery, deformity correction, or ACL surgery requires extra calcium. Such patients need to take 1500mgs of Calcium every day. We recommend obtaining Calcium Citrate with vitamin D at a health food store or pharmacy and taking 500mg three times per day. Absorption of calcium is dependant on Vitamin D. Fracture, osteotomy, and ACL patients need 1000 international units of D daily.

**14. Thy body shall be a Temple.** That means whatever you put into your body, you put into your healing surgical site. Cigarette smoke reduces the amount of Oxygen in the blood which is available for wound healing. Nicotine, itself retards bone healing. (Typically we don't do major elective bone surgery on smokers or those that won't at least quit during the time of their recovery, although sometimes people think they can fool us, but they really only fool themselves). **During your recovery, all tobacco products must be avoided like the plague.** Since major surgeries often initiate a change in lifestyle, this may be a good opportunity to quit smoking or dipping on the permanent basis.

**15. Thou shalt remember that exercising a joint (including sexual activities) puts stress on an incision site.** Patients who have had incisions near moving joints, especially in the lower extremity, where there is less blood supply than the upper extremity, need to leave their sutures in for a longer time. Sutures around the knee need to remain for four weeks, and sutures around the ankle and leg need to stay in place for six weeks. Surprisingly, sutures in the foot can be removed at three weeks. Sutures in the upper extremity stay in for three weeks. This is especially important for out of town patients who may be having someone else remove their sutures. If absorbable sutures and Dermabond have been used, this issue doesn't come up. Please consider your incision site during sexual activities. The position you choose **should NOT put pressure or strain on the site** until the staples/sutures have been removed and it is fully healed.

**16. And on the seventh day He rested.** Humans don't have nearly the stamina of the Almighty. They can not go six full days and nights before resting. Most patients have sleep disturbance after major surgeries. Sleep is one of the most important body functions. A person can't function without it. It is important to proactively make sure that you can get some good rest. For this we will first recommend that you take one or two Tylenol PMs just before bedtime. If that is not sufficient, then a sleeping pill may be prescribed. The earlier you resume your normal sleep patterns, the faster you will recover to your preinjury or presurgical state of good health.

**17. When bad things happen to good people.** We are constantly tested in life. Many times bad things happen to good people. People have reconstructive operations on their bones and joints; behave like good soldiers as they successfully complete their rehab, only to have subsequent injuries when returning to sports. This is especially common amongst off road motorcyclists. Sometimes many good people end up being subsequently treated in clinics or by physicians who are less well suited to treating problems than we are. Usually this occurs in patients who live in places remote from our Clinic. Many of the subsequent treating practitioners don't share our philosophy of avoiding unnecessary arthroscopies, and preserving our factory installed parts such as the meniscal cartilages of the knee. Often this leads to far less than desirable results. We have realized that in the end a return trip to our Clinic is more economical than poor treatment elsewhere. Dr. Sanders' telephone and emails are always answered on the timely basis and he is always available for his patients. He would much rather intervene in your care, whether it be by having you come back to the clinic, or running interference with local physicians than have you treated by a less knowledgeable or skilled practitioner and you being left with a problem that can end one's athletic career and follow you forever.

**18. Nonhealing of fractures and osteotomies:** All fractures or osteotomies, will or will not heal at their own pace. Approximately 95% of fractures/osteotomies will heal, leaving 5% unhealed. These unhealed ones typically require surgical treatment for placement or revision of surgical fixation, bone grafting, and sometimes nonsurgical treatments such as electrical stimulation or shockwave therapy can be selected. The best approach is a proactive preventive approach. This includes relative rest of the part (refraining from sports or restriction in range of motion and/or weight bearing, avoidance of tobacco and cola products.) Also, as noted earlier, Vitamin D 50,000IU per week in divided doses, elemental calcium 1500mg per day, and a high protein diet. Sometimes, necessary medications such as steroids and cancer treatments will retard bone healing. ***It is most important to remember that healing in operative cases is a race. The race is between the inevitable fatigue failure of a metallic implant and bone healing. If the bone heals first, then everything is ok. If the metallic implant fails or works its way loose first, then reoperation will be required. Typically, these hard decisions don't have to be made before several months after the fracture and subsequent operation.***

**19. Thromboembolic Disease.** This is a category of possible conditions that can complicate Orthopaedic Surgery, most commonly in the lower extremities, but can also affect the region of the upper part of the upper extremity. It involves a blood clot that occurs inside of a vein, and that clot can break off and travel to the lungs. Such a clot can, although not often, be fatal. Much of Dr. Sanders' post operative protocols, such as early motion, ambulation, compression stockings, use of spinal anesthesia when available, minimal use of a tourniquet in surgery, and use of Aspirin or other blood thinning medications is done to reduce the incidence of this problem. However, no mechanism is entirely effective.

***It is important for patients to understand the warning signs of a blood clot.***

The most likely complaints or signs that the patient can notice include:

- 1. Excessive swelling of the limb.** This does not include echymosis or black and blue marks which are common and expected to be seen under the skin.
- 2. Soreness in the calf muscle.**
- 3. Rapid Heart Rate**
- 4. Rapid Breathing Rate**
- 5. Shortness of breath**
- 6. Chest pain.**
- 7. Fever**

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*If you experience a rapid heart rate, rapid breathing, shortness of breath and chest pain—call 911—these symptoms are serious signs of a possible clot in your lungs and requires immediate medical attention at the closest emergency room.*

If you experience any of these problems, please notify the Sanders Clinic by calling the office at 940-612-3100 or Dr. Sanders on his cell phone (713.907.6076) as soon as possible.

### **Post Operative Orthopaedic Nutrition and Supplements**

1. **Calcium: 1500 mgs/day.** It is important to get Calcium Citrate with vitamin D rather than Calcium Carbonate tablets. Make sure you are getting at least 1500 mgs of Calcium. The weight of the Citrate doesn't count.
2. **Multi-vitamin:** find a good multi-vitamin to take each day.
3. **Vitamin C:** 2000 – 3000 mgs per day. To help immune system and new cell growth. This helps heal your surgical wound.
4. **Vitamin D:** 1,000 IU/day
5. **Total Daily Caloric Intake:** 40kcal/kilogram of body weight Kilograms of body weight is calculated by your weight in pounds divided by 2.2
6. **Protein Intake:** 1.125gms of protein/kilogram of body weight

As with any medication please discuss changes or additions with your primary care physician. If you are allergic to any vitamins or minerals or their ingredients please tell Dr. Sanders and his staff so this may be noted in your medical record.

(Page 8 is the patient signature page and will be placed in the patient's chart)  
I have read and received a copy of the Commandments document and my questions have been answered by Dr. Sanders or his staff.

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Patient or Guardian's signature

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Printed Name

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Date



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