

Donald D. Trunkey, MD President 1986–1987

Dr. Frederick A. Luchette

How was it that you decided to choose a career in surgery and then, second, when did you decide to focus your career on trauma surgery?

Dr. Donald D. Trunkey

When I was in the seventh grade, I was tackled and hit a clothesline pole with an outstretched right hand, and it caused a dislocated epiphyseal plate fracture of my right wrist. It was quite painful. When my father got off work, he took me to the general practitioner and, over the next three hours, the general practitioner kept going in and reading the books and trying to reduce the fracture. He subsequently was successful, but it did not stay. He then went back to the books and found a clever way of keeping it in reduction, which was to put it in ulnar deviation. My dad held my arm every time he was reducing it, and this was without any anesthesia. Over the next eight weeks, I went back every Friday to have a new cast put on because I continued to play football. I made a decision at that time that I wanted to be a doctor. When I got to medical school I was told by the dean that being a general practitioner put me in the bottom ten percent of the class. I then gravitated towards internal medicine because all my heroes at the medical school at the University of Washington were internists, including Clem Finch and Robert Petersdorf. Surgery was a non-entity at that time and I decided to do a rotating internship at the University of Oregon where Dr. J. Dunphy was. My very first rotation was general surgery, and after three weeks I knew exactly what I wanted to do, and that was

to go into surgery. Dunphy was an incredible role model and I admired him greatly. I did not get the Berry Plan, so I was drafted after my internship. After two years in Germany, Dr. Dunphy called me and reinforced that I was to join his program. I did, and during the five years, my role models became Bill Blaisdell, Bob Lim and Jack Wiley. I then decided that I wanted to do trauma surgery and I talked to Dr. Dunphy. He picked up the phone, called Tom Shires in Dallas and asked him if he would take me on as a trauma NIH fellow. Tom agreed and I spent one year with him doing research. I also helped out with clinical care.

LUCHETTE

Tell us about the response that your peers and mentors had when you announced that you wanted to be a trauma surgeon.

TRUNKEY

Very few people were interested in trauma care. Most people wanted to go into more glamorous and well-paying surgical subspecialties. I never regretted taking the fellowship.

LUCHETTE

Tell us the two or three significant scientific contributions that you are most proud of and how these influenced the field of trauma care?

TRUNKEY

I would have to say the *Archives of Surgery* article (*Arch Surg.*1979 Apr;114:455–60) and The Scientific American article (*Sci Am.*1983 Aug;249:28–35) were most important in systems of care. The *Archives of Surgery* paper compared two counties in California. San Francisco had a Level I trauma center, although that didn't exactly exist at that time, that's what it was. Orange County had several hospitals that took care of trauma and, I might add, very poorly. John West called me and said he was very frustrated in trying to set up a trauma center in his county. I told him that he should look at 100 autopsies of patients who died from trauma and I would do the same with Bob Lim in San Francisco, and we would compare the outcomes. The data was overwhelmingly in favor of a trauma center. The surgeons in Orange County resisted this article and were told to do their own study. After they did so, they were overwhelmed with the evidence that they had too many preventable deaths in Orange County.

My contributions to research initially were with a primate model and I studied shock, resuscitation and the influence of the shock insult on various resuscitative measures. I showed the excitation contraction coupling within the heart was impaired. I also showed that excitation secretion coupling in the adrenal gland was disturbed, and all of these things contributed to the pathophysiology of the post-shock state. When I moved to Oregon to be chair of surgery, I continued my research in the pathophysiology of shock and some of our best papers were written at that time. They were summarized in the *British Journal of Surgery* several years ago.

LUCHETTE

There are always advances in medical care that in retrospect were not the "advances" we thought or hoped. If you had one thing you "championed or adopted" that you could change in your career what would it be?

TRUNKEY

I was suckered into believing the data that came out of the U.S. Naval Research Center in Da Nang, Vietnam, that stated you had to use saline resuscitation and, furthermore, you should have a central venous pressure of about 18 since that would "load the heart" and increase cardiac output. It was a terrible concept and simply contributed to some of the problems we saw at that period of time. It took much convincing and other data that salt water drowning was inappropriate and I hope that I contributed significantly to debunk this bad idea.

LUCHETTE

What do you consider to be the two to three greatest advances in trauma care/science that occurred during your career?

TRUNKEY

I think systems approach to trauma care has been a major concept. It has recently been shown that if patients are entered into a trauma system, they have a 25% better chance of survival and most all will have minimal disability. I think ATLS has been a major advance and more recently, mid-level providers (nurse practitioners and physician assistants) have increased our ability to provide excellent ICU and ward care. I also think that prehospital care has been markedly improved during my life.

LUCHETTE

What were the major changes in practice patterns that occurred during your career?

TRUNKEY

Trauma is now considered a viable pathway in medicine. More recently, there has been a "dumbing down" of general surgery and I think acute care surgery may solve some of the problems. Unfortunately, it is very difficult now for a surgeon to be a true general surgeon that does thoracic and abdominal surgery and critical care. During my training, we would do craniotomies and a fair amount of orthopedics. More recently, particularly at OHSU, we have fostered a one-year rural surgery program which goes back to our roots and these residents who do the year will do approximately 400-500 cases, including C-sections, ORIFs, prostatectomies, etc. This has been a major plus.

LUCHETTE

What aspects of your career have you found to be the most rewarding or are most satisfying to you?

Trunkey

In 1980, I went on to the American College of Surgeons Committee on Trauma. Within a few months, I was up to my ears in trying to make changes through the executive director's office and ultimately to the Board of Regents. The executive director was a tyrant and a high control freak. This made things very difficult. I met with him and was very blunt, then went back to San Francisco and wrote a letter highlighting the things the Committee on Trauma should do. This led to confrontation with the executive director and the executive committee of the regents. We were called together in February of that year and my hands were slapped. Following this meeting, I was told that I would never be an officer in the ACS, and that I would never serve on the Board of Governors. My reaction was to simply keep pushing, and over the next two years we were able to get all of the things that I had originally wanted. We were able to translate ATLS into different languages and we were able to eventually get some nurses through ATLS in a modified way. I certainly took advantage of it and when I went to Desert Storm, I taught all of the nurse/surgeon teams ATLS.

LUCHETTE

What aspects of care have you found to be the most challenging or difficult? What things keep you up at night?

TRUNKEY

I think the thing that gives me the most stress is when you fail on a patient, particularly a young male or female, when you have tried everything and yet they still die. It bugs me to figure out how we went wrong or what happened. Sometimes there just doesn't seem to be any answers.

LUCHETTE

What career advice would you give to young surgeons interested in a career in academic trauma/acute care surgery?

Trunkey

I am very positive about such a career. There is nothing more rewarding. Money is not the issue; it's the reward of getting somebody through an acute injury or acute surgery with a good outcome. What more could you want?

LUCHETTE

What "life-coach" advice would you offer them on their lives outside the hospital?

TRUNKEY

Live your life to the fullest. Take time out to have fun with your family and pursue hobbies that will make you better. I cannot think of many things that are more satisfying than to read a good book, listen to a classic symphony, and playing with my grandchildren. My wife and I

have been married 53 years, and I still love her very much.

LUCHETTE

I'd like to talk specifically about the greatest challenges and the opportunities for the future of trauma and ACS. What do you think they will be?

TRUNKEY

I believe that we must reinvigorate trauma training. I believe there should be six months of special training if it is possible. This would include six months of hepatobiliary surgery, six months of endovascular surgery, at least six months of thoracic surgery, and I strongly believe that if there was enough training (six months) there could be acute neurosurgical procedures such as craniotomies, evacuation of blood and certainly trained to be able to stick in monitors such as ventricular shunts, etc.

LUCHETTE

What do you think the practice of trauma, surgical critical and acute care surgery care will be in 10–20 years?

TRUNKEY

I would do everything to resist "dumbing down" trauma or acute care surgery. I think the future is bright if we truly provide comprehensive trauma care, surgical critical care, and acute care surgery in the best interest of patients.

Luchette

As you reflect on your three decades in a cademic surgery, is there anything you would change?

TRUNKEY

First and foremost, I would probably, if I had to do it over again, have a stronger relationship with the military. I get incredible satisfaction taking care of soldiers. They are called upon to protect our country, and I think they deserve the very best in care.

I have never perceived my personality as being particularly abrasive, but I sure have pissed off a lot of people. I guess maybe I should be more warm and fuzzy, but then I wouldn't be myself.

LUCHETTE

What would you change related to your life outside the hospital?

TRUNKEY

I think I have been very fortunate. I have a great wife, two children, and six grandchildren. We see them as often as we can. I also have been able to travel extensively during my career.

I take my wife on as many of these trips that I can, provided it is safe. I do some things that are a little bit hazardous, but so far, I have been very fortunate. I have many hobbies including making wine, fishing, and I suppose the one thing that my wife would change if she could is that I would not have so many books.

LUCHETTE

What plans do you have in the future, both clinical/academic and personal?

TRUNKEY

I think most of my plans will focus on the personal, because I am 75 years of age and I expect to step down from clinical activity soon. This does not necessarily mean that my academic interests will change. I may write more and I have considered writing a biography.

LUCHETTE

What is the one thing in your career that you would do differently if you had the chance?

TRUNKEY

Nothing. I have enjoyed it very much. As I said earlier, taking care of soldiers that are terribly wounded has been so rewarding, it is hard to believe.

LUCHETTE

Is there anything that we didn't talk about in these questions that you'd like to add for the membership or the readers of the commemorative book during the 75th anniversary of the AAST?

TRUNKEY

Yes. I guess, you know, after I had my little accident in football, I wanted to be a doctor. When I got to medical school all of my heroes were surgeons and that's what I wanted to do. I can tell you that I feel, personally, that it's just one of the most gratifying careers you can pick and particularly when it comes to taking care of the injured, whether it be civilian or military. I am telling you, you just can't believe how rewarding it is. If I had to do it over again I would probably pay money to do it.

LUCHETTE

That's just amazing to me with, as busy as your career has been, you still don't lose that passion and love for just being at the bedside or in the clinic with the patients.

Trunkey

You know, when I was in San Francisco I had a case that summarized it all for me, at least. There was this 19-year-old kid and his girlfriend were walking home from the San Francisco Symphony and these two hoodlums, teenagers 16 and 17, jumped out from behind some

shrubbery and wanted their purse and billfold. Nathan, the male, said, "No." And so they shot both of them. The police arrived within two minutes and Lisa, the girlfriend, said, "Please help him." The policeman said, "Ma'am, he is dead. He doesn't have a pulse." About that time the ambulance arrived and they started CPR. He had a gunshot wound right over his sternum. They brought him into San Francisco General. The city of San Francisco is seven by seven miles so it's pretty well covered by ambulances.

So I opened his chest and repaired his right ventricle and then the left ventricle. The bullet exited the chest and traveled into his abdomen. I opened his abdomen, and it got his spleen as well. I had to ligate his right profundus artery. We had a rule at that time that if the patient didn't wake up in 48 hours we would basically withdraw support. On the 47th hour, he opened his eyes. He opened his eyes and his mom and dad were there. His father was a minister from Montana. Lisa had sustained a gunshot wound through her rectum and she had a colostomy.

His family had prayed for him. I was really losing hope. And, by God, he opened his eyes. He has done very well. They got married and they have three kids. I get a Christmas card every year from his mom and dad.

So I think that kind of case that just makes it so rewarding. And then my more recent stuff, you know, with the military. I've been going to Landstuhl every summer since 2006, and I went to Afghanistan. Then, of course, I had been in Desert Storm before that.

These kids get told to go over there in defense but probably we would be better off not going. It's really rewarding to see them get back.