



Dr. Ronald Hugate MD, FAAOS

Orthopedic Oncologist at Panorama Orthopedics



It was a privilege and honor getting to know Dr. Hugate during the following interview. He is an exceptional individual with a fascinating story and expansive influence. I sincerely appreciate his contributions to medicine as well as humanity.

Dr. Hugate came from a family where no one had been to college; he was the first one. He planned to earn a degree in Mechanical Engineering, and he was really close with some good jobs lined up towards the end of college. Then his course changed suddenly with a torn knee playing basketball. His ACL was reconstructed by a surgeon that had previously been a mechanical engineer. This got him thinking what else he could potentially do. He had done some mechanical engineering internships but discovered that he wasn't exceptionally passionate about the field. So, his senior year post surgery, he took some medical pre-requisite classes and the admittance exam, and ultimately decided to go to medical school.





"I'm a very mechanical person; I like to work on cars and race cars, so those that are tactile like to fix things and tend to gravitate towards surgery – that's exactly where I headed. Orthopedics is a natural fit. A lot of engineering translates well to orthopedic surgery. It's a good combination of skills to have actually because I do some design work as well."

Both of Dr. Hugate's paternal and maternal grandparents died from cancer. Consequently, this as well as his desire for bigger, more involved and challenging cases led him to his subspecialty of orthopedic oncology.

"The sicker the patient, the more opportunity to help them, so I felt like that was where my time would be best served."

Dr. Hugate spent two years at The Mayo Clinic, one of which was invested in a clinical fellowship for orthopedic oncology.

"We got a lot of the really weird cases. I do some standard joint replacements, but also a lot of joint revisions, tumor surgeries, deformities and congenital bone issues."



FEATURED DOCTOR

During his fellowship, Dr. Hugate was deployed to Iraq as a combat surgeon; as a result, he learned very quickly about limb salvage surgery and creative techniques involved in repairing limbs. When he returned, he joined the limb salvage unit at Presbyterian St. Luke's and served there for 12 years, eventually becoming chief of that department.

Dr. Hugate is also highly involved with design work for the 3D printed implants often used for osseous integration for amputees. Consequently, he also consults for implant manufacturing companies helping develop custom built implants for specific cases.

"It's nice to be able to speak both languages, talk to engineers and know what they're talking about and likewise give them some ideas on the medical side of things. My engineering background has proven to be very applicable to my career in orthopedics."

Why did you land at Panorama Orthopedics?

"Generally speaking, there have been a lot of changes in medicine that affect groups. I really like the idea of physician-governed and physician-owned practice. At Panorama, we make decisions based on patient care and quality. We see things not just from a business standpoint, but from a medical, ethical and patient-centered standpoint. This combined with working in a big group with great people make Panorama a great fit for me."

What are your goals for the practice?

"Patients that come to me have usually seen other surgeons multiple times and have difficult problems and travel from far distances. I really try to make interactive and slow things down, then summarize things in lay terms so the patient clearly understands where they have come from with their issue, where there are now and what all their options are moving forward.

"There are many different ways to go about something, but one thing I've learned over many years of practice is that if you lay out enough of the information and allow patients to process and make the decision collectively, those patients by far do the best.

"My goal is to communicate well with the patients, fully inform them of what their issue is, what their options are and then lastly do a more than proficient job technically if they ask me to perform surgery."

Who is one of your heroes?

"Leonardo Da Vinci. He was an unusual combination of artistic, mathematical and medical mind. He was a self-taught preeminent engineer that designed things that should have not even been thought of for hundreds of years later. He had a really strong understanding of the human body through his anatomic dissections, and his medical knowledge was off the chart for his day and age. Similarly, I don't like to be stuck in one thing, I like to be

a really good doctor and surgeon, but I like the way he was able to be many different things."

Since you are so cutting edge, who do you resource for pioneering more medical territory in your field?

"I trained at the Mayo Clinic, and we have a nice group of alumnists there that for many years have trained under some of the giants in our specialty of orthopedic oncology. If I have a difficult case, I can send an email out to the Chairman of Orthopedics at North Carolina or Zurich, Switzerland. All of these guys across the globe are in leadership positions, doing very well and very smart. I'm very thankful to have access to all these individuals to collaborate with."

Some of this newer stuff, though, is brand-new, and he has to make it up as they go. Occasionally, Dr. Hugate and his colleagues are the ones setting the precedent for new procedures. Utilizing 3D printers to print exact replicas of implants is one example of charting new territory.

Some of his favorite cases are the big cancer cases, like bone cancer. If they can catch someone before their cancer spreads to other areas, they have good techniques and great chances of curing their cancer.

"In the last, decade I've done some research on bone sarcomas that affect mostly children or the very elderly, and some of the techniques that have been developed here in Denver have increased survival rates from 70 percent to 90 percent. These are published results. Those are the special cases because those younger patients have a lot of time left, and now that I'm 14 years into practice, I'm starting to see some of these patients get married, have kids and graduate high school and college. So, it is very rewarding to see some of the fruits of our labors in terms of curing their cancers with chemo therapy and surgery, and then see them carry on with their lives."

What advice would you give to PCP's and front-line physicians?

"If you're performing the right treatment for a certain problem, and your patient isn't responding as you would expect them to, keep digging X-rays, MRI, labs or bone scan, because you never know what could be going on there. There are some rare things out there like these bone cancers that, if you catch then early, it could be a life-saving deal."

What does your family think of your profession?

"My family is very supportive; they have sacrificed a lot of time having been without their dad for some part of their childhood. They have been exceptionally supportive of what I do and are even considering medical careers themselves."

Dr. Hugate races cars on the weekends, mostly amateur racing but a few professional events. It helps blow off











steam and get his mind off of the stressful things at work. He has pushed the limits of a variety of cars such as Porsche, Mustang, Audi, Corvette – it all depends on the race. Apparently, his hobbies are as specialized as his work. He is also an accomplished woodworker, but he would say, "You need to be really careful with

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your fingers, though; no one wants to see a fingerless surgeon!" Most of all, he enjoys spending time with his family as well as traveling and hiking.

One of the things Dr. Hugate is most grateful for is knowing that he is in the right profession. There is no question that this is where he belongs and is what he was built for. After our interview, I could not agree more. He comes to work excited about fighting the battles that come at him and conquering them. Even though it can be very stressful and demanding, he loves knowing that this is what he is supposed to be doing.

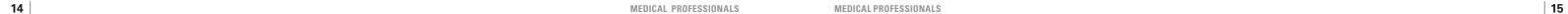
"I'm really excited about being on the front edge of all this new technology. We're going to look back in the next 20 to 30 years at the start of my practice where everything was off the shelf, one size fits all, and by the time I'm finished practicing, we're going to have morphed







into a world where you get your part made for you on a 3D printer, custom made for you; what a cool transition to go through. I'm also very excited Osseous Integration and the new techniques to help amputees by connecting their prosthetics directly to their skeleton."



Osseous Integration Implantation is where instead of using a socket on your residual limb that can cause pressure or have issues with perspiration or tissues may be too thick to control the prosthetic, the osseous integration implant actually goes into your bone and comes out through the skin so when you put your prosthetic on, it's a direct skeletal attachment which is a whole new world for the patient.

This is a very exciting technology for Dr. Hugate because of the vast number of patients he saw in Iraq that could be direct beneficiaries of this type of technology.

What is most the surprising thing about people that you have seen?

"My patients have every reason in the world to be bitter, angry people, but they are not. They come in with advanced cancers and multiple failed surgeries, and they could be really bitter and angry like I would likely be, but they're not! They have great attitudes and smiles on their faces. Their resiliency is amazing. It reiterates to me how important your mindset is to healing. It amazes me every day. It is also a powerful perspective check and makes you grateful for all that you have."

Here's a little more on Dr. Hugate from his bio:

Ronald Hugate, MD, FAAOS Ronald Hugate, M.D., is a board-certified orthopedic surgeon who specializes in orthopedic oncology, hip preservation, complex joint reconstruction, and limb salvage. Dr. Hugate is considered a leader and innovator in the treatment of complex orthopedic problems. Dr. Hugate treats patients with forms of complex orthopedic problems that most others cannot, from cancer to prosthetics and everything in between. He enjoys the challenging and complex cases that allow him to utilize his extensive training and research. He loves the reward of seeing patients who have nowhere else to turn back on their feet and feeling better in life after treatment!

Dr. Hugate graduated Magna Cum Laude from Virginia Tech University with a bachelor's degree in Mechanical Engineering in 1994, he then went on to complete medical school at Eastern Virginia Medical School. In 1998, Dr. Hugate began his surgical internship at Penn State University where he then also completed his orthopedic surgery residency. In 2003, Dr. Hugate completed the Ivin's Research Fellowship at the Mayo Clinic and then went on to complete an orthopedic oncology fellowship there as well. In 2005 the Mayo clinic awarded Dr. Hugate the title "Instructor of Orthopedics" for his hard work and dedication.

Dr. Hugate is committed to the better-

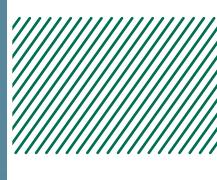
Dr. Hugate is committed to the betterment of orthopedic care today and for the generations to come. He passes on a legacy of intellectual curiosity and desire to help others through teaching young people. As an adjunct associate professor of mechanical and materials engineering at the University of Denver, and clinical faculty at the Rocky Vista University School of Medicine, Dr. Hugate enjoys inspiring and training the next generation of engineers and physicians. Through this collaboration with educational institutions, Dr. Hugate stays actively involved in

researching ways to improve osseous and other bio-integrated implants, the medical and surgical treatment of bone cancers, and joint reconstructions.

In addition to his commitment to excellence in orthopedic surgery, Dr. Hugate is also committed to service. He has participated in multiple medical mission trips to aid underserved populations of the world. Most recently he went to Haiti in January of 2010 following the devastating earthquake. Dr. Hugate has also proudly served our country as a Lieutenant Colonel in the United States Army reserves where he has been deployed four times (including deployments to combat hospitals in both Afghanistan and Iraq) in support of our troops. For his efforts in the Army, Dr. Hugate has twice been awarded the Army Commendation Medal.

Dr. Hugate is married and lives with his family in the Denver Metro Area. He hails from Virginia where he was born and raised in Williamsburg with his two brothers. He enjoys spending his free time with his wife and children. Other hobbies include traveling, woodworking, high-performance cars, and car restoration.





CHARITABLE GIVING

in 2020

Now that we're several weeks into 2020, you may be thinking about your charitable giving for the year ahead. After all, charitable giving is a powerful financial tool – you can support a worthy cause of your choice while possibly lowering your tax bill at the same time. Here are a few things to consider:

Let your generosity show

If a charitable organization has 501(c)(3) tax status, your gift can be tax-deductible. On the most basic level, a gift of cash can earn you a tax deduction. For example, if you are in the 25 percent tax bracket and you give \$1,000 to a qualified charity, you lower your tax liability by \$250.

Alternatively, donating appreciated securities may offer a greater tax benefit. If you give appreciated securities held for more than one year, you can deduct the full fair market value, up to 30 percent of your adjusted gross income. In addition to the deduction you receive, neither you nor the qualifying charity will owe capital gains taxes on the donated investments.

Other charitable giving vehicles such as Charitable Trust or Donor Advised Funds

There are many other charitable giving tools and strategies you can pursue, each with its own advantages. Charitable trusts, for example, can be established to help you accomplish long-term philanthropic and tax man-

agement goals. Charitable trusts are irrevocable trusts established to receive gifts of cash or other property on behalf of a qualified charitable organization, and may be a practical means of providing income and/or transferring assets.

Or, donor advised funds may be used by individuals who intend to give to charities over time and who want to maximize their current income tax deductions in the process. Donor advised funds can provide a means to help support worthy causes of your choice while improving portfolio tax efficiency on an ongoing basis.

Consider contacting a financial professional to discuss which form of charitable giving may be right for your particular situation.

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