checkpoint

IN THE FIGHT

USAFA leads the way in concussion research

IN THE EVE OF THE STORM

AOG USAFA ALUMNI MAGAZINE

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RINGSIDE



FEATURES



Find the Falcon See details on p. 16

O Landmark Research

USAFA is an integral partner with the NCAA, Department of Defense and numerous universities and colleges in researching concussions and their effective treatment. Some findings are already having an impact on the care of patients.

24

30

Leading the Way

Dr. Curt Hayes '99 is doing his part to address the opioid crisis in America. A dental surgeon in Colorado, Hayes has begun using a long-lasting, local anesthetic during dental procedures to eliminate the prescriptions he writes for opioid painkillers.

2018 Distinguished Graduates

John Fox '63, T. Allan McArtor '64 and Gen. (Ret.) Stephen Lorenz '73 are this year's honorees for the USAFA Distinguished Graduate Award. The trio will be honored at this year's Founders Day celebration on April 6 at the Academy.

THE FLIGHT LINE

- 4 Staff Directory
- 6 Board Chair Journal
- 8 The Hangar

AOG updates, your feedback, news and fun.

Letters, Check Ins, and more **p. 8** *Checkpoints* Challenge **p. 11** News from USAFA and grads **p. 14** USAFA Endowment supports cyber efforts at Academy **p. 48** Gary Howe reflects on 20-year AOG career **p. 52** AOG recognized for excellence in communications **p. 56**

58 Roll Call

Heritage and graduate profiles.

Grads accept a physical challenge and take a hike **p. 58** Legacy class donates sabres to graduating firsties **p. 62** Class gifts help support, improve Academy Cemetery **p. 64** Young Alumni honorees tout impressive resumes **p. 66** Long Blue Lifestyle: Grad helps moms before and after pregnancy **p. 70** Janssen '68 picks up service award **p. 74**

76 The Terrazzo

Cadet life and the latest from the Academy.

Civilian faculty members enhance instruction for 25 years and counting **p. 76** Cadets, faculty help innovate A-10 capabilities **p. 82** FalconSAT program readies for yet another exciting launch date **p. 86**

90 Gone But Not Forgotten

- 100 Class News
- 144 Final Approach

On the Cover

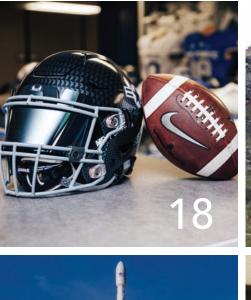
The entire Cadet Wing is participating in a national concussion study in an effort to discover better ways to diagnose and treat the brain inujuries. About 10 perecent of cadets suffer a concussion each year, due to injuries during sports activities, Basic Cadet Training, daily physical training and even falls on ice. USAFA is on the frontlines of the battle to properly diagnose and treat concussions.

Checkpoints Online

Cale Simmon '13 supported U.S. athletes at the 2018 Winter Olympics in Korea while working at the Athlete Resource Center; the 25th annual National Character and Leadership Symposium was again a huge success, playing off the theme of "Ethics and Respect for Human Dignity; Brig. Gen. Kristin Goodwin '93, USAFA commandant of cadets, provides an update to the grad community.















The Problem With Pain

Colorado oral surgeon does his part to help slow national opioid epidemic By Jeff Holmquist



When Dr. Curt Hayes '99 opened his new private practice in May 2017, a 22-year-old recovering heroin addict was among his first patients who needed impacted wisdom teeth removed.

For decades, the dental industry has used opioids for pain management following such oral procedures, but Hayes knew the drugs could mean a relapse for the former addict.

Fortunately, Hayes — an oral surgeon from Lafayette, Colorado — is among a growing number of health professionals working to curb the rising tide of opioid use and addiction throughout the U.S.

So instead of prescribing the typical Vicodin or Percocet, Hayes injects a longlasting, local anesthetic — Exparel — into the gums of his patients to significantly decrease the post-operative pain from wisdom tooth and other dental surgeries (i.e. implants and facial cosmetics).

"It's one extra step for us, but I think the benefit to the patient is well worth the effort," Hayes says.

The slow-release drug provides pain relief for up to 36 hours, Hayes notes, and then over-the-counter Ibuprofen and Tylenol help take the edge off for the remainder of the recovery period.

Hayes explains that the alternative pain management plan not only is beneficial for recovering addicts, it can help eliminate early opioid exposure among young people. Many who become addicted to opioids are first introduced to the drug after routine dental procedures. Research indicates that individuals who take an opioid for more than three days straight are much more likely to develop an addiction, which can later lead to heroin (a low-cost opioid) use and abuse.

Another advantage to a non-opioid pain management plan is the reduction in the number of unused pills that end up on the street. Too many prescribed pills are stolen or sold, thus increasing the chances that the medication will end up in the wrong hands.

"We do have a problem in Boulder County and we have a problem in Colorado ... as do most states," he reports. "Opioid overdoses are increasing. The number of people who are using is increasing. If I can do my part as a doctor to decrease the potential for that, I think it's helpful."

Last October, President Donald Trump declared the opioid crisis a national public health emergency. State and federal agencies have since ramped up efforts to deal with the situation.

Current estimates indicate that 112 million opioid prescriptions were written in the U.S. in 1992, but in 2016 that number was 236 million.

As a consequence, overdose deaths related to opioids and heroin abuse have skyrocketed nationwide — 33,000+ in 2015 and 42,000+ in 2016.

"When you look at the numbers, a good number of people have their first

exposure to opioids through wisdom teeth," Hayes says. "That's my frontline, and there's something I can do about it. I'm able to sleep better at night knowing that I'm not contributing to the problem."

A Different Path

Hayes grew up in Colorado Springs, and he could see the United States Air Force Academy from his childhood home. As a youngster, he attended Falcon football games with his grandparents and dreamed of attending USAFA when he was older.

"I went into the Academy thinking I was going to be a pilot, pretty much like everyone else," he smiles. "But it just came to the point where I wasn't going to be able to do that. I had to choose a different career path."

A mentor at the Academy suggested that Hayes investigate the dental program, which first opened up to cadets in the late 1990s. Hayes was among the first group of second lieutenants who entered the training program immediately upon USAFA graduation. Then he was the first USAFA graduate allowed to pursue an oral surgery specialty right after completing dental school.

"I kind of feel lucky that I didn't end up flying sometimes," Hayes admits. "As noble a profession as that is, I found a profession that suits me better in the long



term than what flying would have given me. I enjoy meeting people on what they feel is one of the worst days of their lives and being able to help them out."

Hayes spent five years in San Antonio, including his residency, then transitioned to Scott Air Force Base. During his four-year assignment in Illinois, Hayes also was on the teaching staff at Southern Illinois University School of Dental Medicine and with the ear, nose and throat program with the Center for the Sustainment of Trauma and Readiness Skills (C-STARS) in St. Louis.

For the next three years, Hayes was the lead oral surgeon at Ramstein Air Base in Germany.

"We were able to help out with all the wounded warriors coming through from Afghanistan, the Middle East and Africa," he says.

His final Air Force assignment was at Keesler Air Force Base in Mississippi.

Private Practice

After finishing his 13-year commitment with the Air Force, Hayes decided it was time to settle down with his family. His oldest son is on the autism spectrum and constant change can be difficult for him to process.

"I was going to be moving every two years as a commander, so the Air Force just wasn't right for my family any more," he explains. "We made the decision to get out."

He and his wife, Lynn, returned to Colorado to pursue new professional opportunities.

Hayes says he considered joining an established oral surgery practice, but couldn't find a good fit. He wanted to operate a dental practice his own way, including the ability to use alternative pain management treatments and to minimize costs to patients. Hayes also wanted the opportunity to be integrated into the local community.

The couple constructed a new building in Lafayette, Colorado, opened Coal Creek Oral Surgery & Dental Implant Center in May and have been working hard to build up the practice ever since.



"The Academy opened a lot of doors for me," he says. "I don't know that I would have been able to go through dental school and get my residency paid for without having my start at the Academy. It's allowed me to build my own practice — the building, the land and everything — without the burden of significant school debt."

Hayes adds he's grateful that the Air Force trained him in a career that was easily transferrable to the civilian sector.

Taking the Lead

As Hayes was reading various professional journals in search of alternative pain management options, he found Exparel — a drug used by doctors performing C-section births. "So they didn't have to give narcotics to new mothers," he explains.

With the help of the drug company, Hayes and others were able to begin using Exparel on oral surgery patients.

The drug releases slowly inside the patient's mouth. Hayes says by using Exparel and over-the-counter pain medications, his patients are able to return to school or work within a couple days. The recovery period from oral surgery using traditional opioid painkillers is typically much longer.

"My patients still take a couple days off because of the swelling," he reports, "but they aren't incapacitated on the couch. They're able to get back to their daily routines a lot easier."

PREVIOUS PAGE

Dr. Curt Hayes '99 opened Coal Creek Oral Surgery & Implant Center in May 2017 after an eventful 13-year career with the Air Force. (Photos by Ryan Hall)

ABOVE LEFT

Dr. Curt Hayes prepares a syringe of Exparel prior to a wisdom tooth extraction at his private practice.

ABOVE RIGHT

Dr. Curt Hayes (left) injects the long-lasting anesthetic into a patient's gums.

"When we were at the Academy, you're always taught to seek out opportunities ... to step out and do the right thing, even if it isn't the easiest way to do it." Since first using Exparel, the feedback he's received from patients has been universally positive, Hayes says.

"My patients have loved it, and the parents have really embraced it," he notes.

The only negative aspect to the drug is its price. And because Exparel is a fairly new treatment option for dental procedures, Hayes says insurance companies do not cover the cost.

Despite the added out-of-pocket cost of the local anesthetic, Hayes says the majority of his patients still prefer the non-narcotic choice.

Hayes has captured a fair amount of media attention for his alternative

pain management practices. He's been interviewed on National Public Radio and Colorado Public Radio, as well as for stories in various publications.

"When we were at the Academy, you're always taught to seek out opportunities ... to step out and do the right thing, even if it isn't the easiest way to do it," Hayes says. "Advancing this drug is not the easy way to do it. The easy way is to sit back and just prescribe narcotics like everyone else."

But Hayes says eliminating opioids from his practice was a leadership opportunity that he couldn't ignore.

"Opioids are having a significant impact on our community," he notes. "This is the right thing for our community and our practice."

Reserve Officer

Now a lieutenant colonel in the Reserves, Hayes is assigned to F.E. Warren Air Force Base in Wyoming as an oral surgeon.

He assists with oral surgery cases at the base, while also mentoring less experienced captains on the finer points of surgical procedures.

"I've had great experiences — which I'm sure everyone in the Air Force does — but the ability to help people when they are in pain or when they have had a traumatic situation ... it still motivates me," Hayes says.

Hayes says he uses his new Reserve role to advocate for alternative drugs, such as Exparel, for pain management. He's encouraged that many Air Force oral surgeons have begun to shift away from opioids as well.

At F.E. Warren, many of the airmen serving with the security forces for the nuclear missile mission are young and often end up getting their wisdom teeth removed.

By using Exparel, oral surgeons are able to return the airmen to work in three days and only miss one rotation. If opioids are used to relieve pain, the airmen cannot return to work for seven days and they typically miss two-and-ahalf to three rotations. "Security forces commanders are much happier if they can get their folks back into working status faster," he explains. "There are definite advantages to using this medication from a mission standpoint."

Hayes has communicated with surgeons at other bases as well and convinced them of the advantage of the long-lasting anesthetic approach.

"They've really picked up on it and are starting to move with it," he says.

Hayes is working with the company that manufactures Exparel and various insurance companies to get the cost of the drug covered for civilian and military patients.

In addition, the Food & Drug Administration is currently reviewing additional non-opioid drugs that Hayes hopes will be approved for alternative pain management in the near future. Hayes hopes the approval process moves quickly.

"I understand that the regulatory system is there to keep us all safe and everything," Hayes says. "But if we're facing a national crisis, then they need to be more focused on some of these medicines."

