

Work History

Common Spirit	Feb 2024-Pres	Chief of Arthroplasty for Southern Colorado 900 Surgeries, 810 total joint replacements, 300 revisions in 2023
Yampa Valley Medical Center	Aug 20- Apr 24	Chief of Arthroplasty, Steamboat Springs, CO
	Jan 22- Apr 24	Orthopaedics Service Line Chief Adult reconstruction surgeon in Colorado Springs/Steamboat Springs completed 784 surgical cases/623 joint replacements/180 revision in 2022
USAFA Hospital	Aug 20- Jun23	Chief of Orthopedics and Podiatry Air Force Academy/Chief of Arthroplasty Colorado Springs Military Market
	Aug19 -Present	F. Edward Hebert School of Med Clinical Associate Professor of Surgery
	Aug 20- Present	Chief of Joint Arthroplasty Colorado Springs Military Medical Market
	Aug 19- Present	Arthroplasty Today Journal Peer review
New England Baptist Hospital	Aug19- Jul20	Otto E. Aufranc Adult Hip and Knee Reconstruction Fellowship- New England Baptist Hospital Boston, MA
USAFA Hospital	May15-Jul19	Bone & Joint Journal Peer Article Reviewer Colorado Springs Mel Military Total Joint Replacement Team Chief 1/79 Air Force orthopedic surgeons in RVU production fiscal yr 2016, 2017 & 2018 Completed over 100 successful total joint replacements and 4000 surgeries as most productive Air Force surgeon Rejuvenated Non-Existing Total Joint Prog in 2016 recapturing over \$7 million in lost RVU production. Build most efficient & productive TJR program in DoD winning US Army's most prestigious medical award_ Wolf Pack Award 2017 METRC Government steering committee- Multimillion-dollar Congress directed limb salvage research program
	Jul 13-Jul19	USAFA- Staff orthopedic surgeon Air Force Academy Prep school football team physician 2017, 2018, 2019 Varsity Men's & Women's team physician Only Orthopaedic Surgeon on Fast Response Team Air Force Academy Disaster Orthopaedic Team Chief
	Oct14-Apr 15	Craig Joint Theater Hospital, Bagram Afghanistan Korean Humanitarian Hosp Team Ldr; Lower extremity subj matter expert entire country
	Nov 13-Jul 19	Sterling Regional Medical Center
	Jul 14 – Jul 19	Colorado Springs Memorial Hospital-UC Health- Only Level 1 trauma hospital in Colorado Springs- Over 150 call days
	Sept 16-present	Craig Hospital Bagram Afghanistan
	Jul 16- present	Dane Street Independent Medical Examiner/Disability Qualified

Hospital Affiliations

Sept 14- Pres	Penrose/ St Francis Medical Center
Aug 13- Pres	USAFA Hospital/Evans Army Hospital
Sept 13- Pres	Memorial UCH Colorado Springs
Aug 17- Pres	Yampa Valley Medical Center, UCH Steamboat Springs
Aug 15- Pres	Craig Memorial Hospital
Aug 18- Pres	Pioneers Hospital, Meeker, CO
Sept 20- Pres	Audubon Surgical Center
Sept 20- Pres	Steamboat Surgical Center

Post Graduate

Aug19-Jul20	Otto Aufranc Adult Reconstruction Fellowship New England Baptist Hosp Boston, MA ➤ Second busiest Total joint fellowship in country ➤ Completed over 700 total joints, over 100 Direct anterior approaches, 100 revisions
Jul09 -May13	Orthopaedic Surgery Residency (San Antonio Military Medical Consortium- Brooke Army Regional Center) ➤ Only level I trauma center in DOD: only DoD facility to treat civilian trauma ➤ Top 5 largest Orthopaedic residency program in country ➤ More than 3200 cases- Number 1 of 8 graduating 2013 residents in case numbers- most cases by any resident in last 10 years ➤ Anatomy chief- rebuilt entire residency anatomy curriculum for 41 residents
Jul08-Jun09	Orthopaedic Surgery Internship (Wilford Hall medical Center)

Education

- August 2004- May 2008 Uniformed Services University of Health Sciences, Bethesda, Maryland
- Alpha Omega Alpha Medical Honor Society GPA 3.89
 - Number 1 Air Force Graduate, Number 2 graduate of all Military services
 - Air Force Surgeon General's Award for Top Air Force Student in class of 2008
 - Academic Excellence Award for Medicine clerkship, Pharmacology, Anatomy, Clinical Medicine
 - Dean's Award for Academic Excellence 2006, 2007, 2008
- 2002-2003 Colorado State University Distance MBA
- 1993-1997 University of Florida Bachelor of Science Gainesville, Florida
- Dean's List 1996, 1997

Licensure

- ABOS July 2015
- Medical License: Colorado #52868
- USMLE Step 1 June 2006
- USMLE Step 2 CK June 2007
- USMLE Step 2 CS June 2007
- USMLE Step 3 October 2008

Certified Med Educ

- SOMOS 2021 29 hours
- ABOS WLA 2021 8 hours
- Hip Society Specialty meeting 5 hours
- ABOS WLA 2020 8 hours
- SOMOS 2019 29 hours
- AAHKS 2019 22 hours
- ABOS 2019 WLA recertification 8 hours
- SOMOS 2018 27 hours
- ATLS 2018 18 hours
- SOMOS 2017 29 hours
- Point of Care Learning 2017 20 hours
- JBJS CME 2017 15 hours
- SAE Trauma/Recon 2017 35 hours
- AAHKS Society mtg 2016 18 hours
- SOMOS 2016 23 hours
- Orthopaedic residency 6/2013 100 hours
- AAOS OITE 2012 20 hours
- SOMOS 12/2013 30.75 hours
- AAOS 2014 35 hours

Professional Training

- Smith and Nephew CORI TKA and UKA certification
- Stryker Mako TKA and UKA certification
- Vail Fellows Course April 20
- Oxford UKA certification Nov 2019
- Stryker Master Total Knee revision Chicago May 2018
- Stryker Masters of TKA/TKR Nov 2017
- Stryker Master of THA/THR Nov 2017
- Master's techniques Shoulder surgery AANA 2016
- Osler Institute Orthopedic surgery 2015
- Emergency War Surgery Course 2014
- Advanced Surgical Exposures in trauma 2014
- Miller Review Course 2013

- Enneking Clinical Musculoskeletal Pathology course Apr 2012
- Surgical Approaches for Internal Fixation 2013, 2012, 2011
- AO Basic Principles and techniques of Operative Fracture management- June 2010
- Basic Life Support- 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021
- Advanced Trauma Life Support- June 2007, Apr 2013, May 2018
- Advanced Cardiac Life Support- Sept 2013, Sept 2015, May 2017, 2019, 2021
- Basic Disaster Life Support- July 2007

Military

- Aug 2020- Present- Chief of Orthopaedics/Podiatry; Chief of Joint Arthroplasty
- Highest RVU production in the USAF 2021, 2019, 2018, 2017
 - Most joint replacement surgeries of any military surgeon in the entire DOD
- May 2015- Jul2019 Colorado Springs Military Joint Replacement Lead Surgeon
- Over 1000 total joints completed, 12000 patient visits, saved over \$17million
 - Tasked to revamp Military Joint replacement program to recapture over \$2 million annual revenue loss to civilian community. More total joint replacements performed than any one surgeon in DoD in2016.
 - On pace to recapture \$5-8 million in total joint replacement revenue in 3 years
 - Fostered relations between Army and Air Force hospital
 - Wolf Pack Award- most prestigious medical award in the Army for team success.
- Oct14-April15- Operation Resolute support at Bagram Airfield, Afghanistan
- Lower Extremity SME for entire country of Afghanistan
 - Treated 275 military patients at busiest military hospital in Afghanistan
 - Performed 450 procedures/150 complex war injury surgeries
 - Over 75 Humanitarian surg performed/300 patients seen/greater than 175 hours for Humanitarian msn
 - Optimized orthopaedic equipment functionality saving \$1.2million over the next 2 years
 - Mass casualty team chief- key to AOR's 98% battle injury survival rate
 - Actualized OEF/OFS goals with expedited AFSOC warrior evaluations with on time evacuations
- Aug 2013- present USAFA prep team surgeon
- Jul 2013 – present United State Air Force Academy staff Orthopaedic surgeon
- 2008-2013 San Antonio Military Medical Consortium
- 2004-2008 Uniformed Services University of Health Sciences
- 2002-2004 Joint Undergraduate Navigator Training Mission Commander Instructor
- Standardization and Evaluation officer
 - Subject Matter Expert for Strike Academics
 - Academics Chief
- 2000-2004 Combat Mission Ready Weapons System Officer on B-1 Bomber
- Youngest Evaluation and Standardization officer
 - Selected for Joint Task Force Exercise mission planning cell, RED-FLAG 2001
 - Joint Direct Attack Munitions Weapons System Evaluation Program
- 2002 Operation Enduring Freedom
- 160 B1-B Bomber combat hours, 70 tons of weapons dropped over Afghanistan
 - Hand selected as part of initial 2 ship to fly into country on day #1 of combat operations
 - Dropped first ever Mk-84from B1-Bomber in combat
 - Part of VIP team that briefed General Hornburg and Secretary of Defense Roche on B1-Bcapabilities
- 2001 B1-B Weapons System Officer Initial Qualification Course;
- Academic Excellence Award for 99.1 test average
- 2000 Electronic Warfare School
- Superior Academic Excellence Award- for 98.2 test average
- 1998-1999 Joint Undergraduate Navigator Flight Training
- Commodore's List- top 10 percent of all graduates to ever graduate from JUNT program
 - General William A. Cohen Award for top graduate class of 1999
- 1998 Officer Training School
- Distinguished Graduate-top 10%
 - Billie Belcher Award- Highest PFT average entire 1998 class

Military Decorations: Meritorious Service Medal; USAF Air Medal; USAF Aerial Achievement Medal ; USAF Commendation Medal; Army Commendation Medal (2016); Military Outstanding Volunteer Medal; ISAF NATO Medal; Afghanistan Campaign Medal ; Navy Achievement Medal; USAF Outstanding Unit Award; National Service Defense Medal; Meritorious Unit Award; Global War on Terrorism Expeditionary Medal; Global War on Terrorism Service Medal; Humanitarian Service Medal; Military Outstanding Volunteer Service Medal; Air Force Expeditionary Service Medal; NATO Medal: AF Longevity Service: Navigator Aeronautical wings (1999)

Professional Organizations

- American Academy of Hip and Knee Surgeons- active
- Society of Military Orthopaedic Surgeons- active
- American Academy of Orthopaedic Surgeons- active - fellow member
- American Orthopaedic Foot & Ankle Society- active
- International Congress for Joint Reconstruction- active
- Orthopaedic Political Action Committee- active

Research

Presentations

- **SOMOS Grand Rounds Series-** Outpatient Hip/Knee/Shoulder Arthroplasty webinar
- **Howarth WR**, Dannenbaum J, Murphy, S. Patient-specific cup placement in THA patients with stiff or fused spine.
 - ITSA virtual meeting November 21, 2020.
 - NEBH Grand Rounds May 2020
 - SOMOS 2021 Dec 2021
- **Howarth WR**, Murphy SB. Combined Hip Spine Motion: Refining Our Surgery Mission. Spring 2020
 - Current Concepts Joint Reconstruction, May 2020.
- **Howarth WR**, Dannenbaum J, Bono J, Mattingly D, Nairus J. Incidence of loss of pulse in non-operative leg for posterior approach total hip arthroplasty on pegboard.
 - New England Baptist Hospital Grand Rounds, June 2020.
 - AAHKS Nov 2021
 - SOMOS Dec 2021
- Dannenbaum J, **HowarthWR**, Pugliano V. Reoperation after cerclage wires constructs in primary Total Hip Arthroplasty.
 - New England Baptist Hospital Grand Rounds, June 2020.
- **Howarth WR**. Hip Spine Relationship.
 - DJO specialty Day Boston MA, June 2020.
- **Howarth WR**, Grogan B, Borchard K, Campbell SE. Effect of microfracture on meniscal healing in a goat (*Capra hircus*) model. *Orthopedics*. 2016 Mar 1;39(2):105-110.
 - San Antonio Orthopedic Association Award winner May13.
 - AAOS meeting April 2014
 - SOMOS Dec 2013
 - Military Health Research Symposium Nov 2013.

Publications

- **Howarth WR**, Hosalkar H, Gottschalk H. Tibial Tubercle Fractures in Children with Intra-Articular Involvement: Surgical Tips for Technical Ease. *J Child Orthop* (2011) 5:465-470. PMC ID 3221755
- **Howarth WR**, Grogan B, Borchard K, Campbell SE. Effect of microfracture on meniscal healing in a goat (*Capra hircus*) model. *Orthopedics*. 2016 Mar 1;39(2):105-110. Epub 2016 Jan 25 1
. PMC ID 26811956
 - Award winner to San Antonio Orthopedic Society May 2013
 - Blue Ribbon Award Winner
 - Roy Davis completion winner-Best research/presentation for all San Antonio orthopaedic surgical residents
 - Presented Military Health System Research Symposium 2013
 - Presented at SOMOS 2013
 - Presented at AAOS 2014

- **Howarth WR**, Campbell S, Grogan B. MRI protocol comparison: Is there a difference in accuracy in detecting meniscal tears.
- **Howarth WR**, Ficke J, Chan R. A Case Report of Limb Salvage Performed on a Closed Calcaneus Fracture with Dysvascular Posterior Tuberosity.
 - Presented at SAUSHEC research competition- finalist
 - Presented Omer day competition

Ongoing Projects

- Joseph H Dannenbaum, MD¹, Timothy Horan DO², Kristen LaHaise BS¹, Jared Preston MD¹, **William Howarth MD¹**, Carl Talmo MD. Correlation of patient reported preoperative narcotic use and postoperative morphine milligram equivalents in inpatient total joint arthroplasty.
 - Submitted to AAHKS, AAOS, SOMOS 2022
- K McAlpine, MD, **WR Howarth MD**, A Burapachaisri BS, P Mauricio BS, R Niu MPH, L Cipra PA-C, E Smith MD. Preoperative controlled substances use is underreported in both electronic medical record and state prescription monitoring programs: The role of urine toxicology screening prior to Total Joint Arthroplasty.
 - Submitted to AAHKS, CCJR, AAOS 2022