



# Denver Health Orthopaedics In The News

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## *Podiatry Services at Denver Health*

Over the last five years there has been an increase in the treatment of ulcerations and complicated foot and ankle infections at Denver Health. We believe strongly that in these patients comprehensive care is critical to success, and we take a multispecialty approach towards limb salvage. The Podiatric department works with Infectious Disease for appropriate antibiotic therapy, and we have an excellent working relationship with Interventional Cardiology and Radiology to provide endovascular procedures to our patients with critical limb ischemia.

We take an aggressive approach to the treatment of diabetic and vasculopathic patients with foot ulcers. We use successful off-loading techniques proven to shorten healing time including total contact casting which is designed specifically to heal neuropathic ulcerations while still allowing the patient to be mobile. It involves the application of a full contact fiberglass cast with a rocker foot bottom. Proper off-loading with casting or healing sandals in conjunction with weekly debridements, has significantly lowered the rate of lower extremity amputations at our facility. Once we have the patient healed, we are able to coordinate follow up with a local pedorthist for diabetic shoes with accommodative inserts. We are also able to provide the patient with routine preventive care and have worked with and educated our extensive network of primary care physicians on early identification and initial treatment of the patient at risk for development of lower extremity ulcerations.

A new wound care clinic has just been established in the General Surgery Department for the treatment of lower extremity ulcerations including patients with neuropathy, peripheral vascular disease, venous stasis ulcerations, or other systemic diseases. This new clinic has allowed for an increase in number of patients we are able to treat. To meet the criteria the ulceration must be no higher than 7 centimeters above the ankle and not involve underlying ankle osteomyelitis. We accept all foot ulcerations including those that do have underlying foot osteomyelitis and require surgical treatment.



The physicians at Denver Health's Center for Complex Fractures and Limb Restoration are highly specialized and available 24 hours a day to provide orthopaedic trauma and surgery coverage.

Physician consults are also available 24 hours a day, seven days a week.

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# Case of the Month

A 57-year-old male was admitted to the Medical Intensive Care Unit at Denver Health Medical Center with diabetic ketoacidosis and an infected diabetic foot wound. He presented with a history of three days of fevers and chills, nausea and vomiting, and decrease in appetite.

He stated that he had the foot wound for approximately two months. Examination demonstrated foot cellulitis of the dorsal and plantar midfoot extending proximally along the tibialis posterior tendon to the medial malleolus.

A submetatarsal wound was noted with serous drainage. Initial lab work showed a WBC of 25.2 with wound cultures growing *E. coli* and alpha hemolytic streptococcus. There was no radiographic evidence of osteomyelitis. Infectious Disease was consulted for antibiotic management and Interventional

Cardiology to evaluate for peripheral vascular disease. Internal Medicine assisted with diabetes and general medical issues.

The patient was maintained on Unasyn and was taken to the operating room for three irrigation and debridement procedures over the course of 10 days. Once the patient's wound improved and his leukocytosis resolved, he was taken back to the operating room for a definitive transmetatarsal amputation with rotational plantar flap to achieve wound closure.

The patient underwent outpatient IV antibiotic therapy. Within three months the amputation was healed and the patient was placed in diabetic shoes with accommodative inserts with toe filler. He has had no subsequent complications with two years of follow-up.



*Pre-operative*



*Pre-operative*



*Immediate Post-operative*



*3 Month Post-operative*



*Final Follow Up*

# Physician Spotlight

## *Merribeth Bruntz & Chrystal Berg*

**Merribeth Bruntz, D.P.M.**, director, Podiatric Services, Denver Health, trained and obtained her medical degree from Temple University School of Podiatric Medicine and completed her residency at Southern Arizona VA Healthcare System in Tucson, Arizona.



*Merribeth Bruntz, D.P.M.*

She is the principal investigator on several research projects including: Use of Pulse Lavage Versus Gravity Lavage in Operative Management of Diabetic Foot Infections; Effects of Mental Health Functioning on Healing Following Minor Foot Amputations or Surgical Irrigations and Debridement in Diabetic

Foot Infections; Psychosocial Variables and Functional Status Following Lower Extremity Amputation Secondary to Diabetes; and Chopart's and Syme's Amputations in an At-risk Diabetic Population.

**Chrystal Berg, D.P.M.**, trained and obtained her medical degree from Finch University / Dr. William Scholl College of Podiatric Medicine in Chicago, Illinois and did her Podiatric Surgical Residency in Greeley, Colorado. Dr Berg is trained in all aspects of foot and ankle surgery including: elective, reconstructive, trauma, arthroscopy, and diabetic limb salvage.



*Chrystal Berg, D.P.M.*

## *Denver Health's non-operative Sports Clinic*

Children and adults with a variety of injuries and complaints ranging from neck pain to toe pain are seen in Dr. Gutierrez Non-Operative Sports Clinic.

Dr. Gutierrez evaluates and treats injuries such as sprains and overuse injuries, minor fractures, and provides early osteoarthritis care. Dr. Gutierrez is board Certified in Family Medicine with a Certificate of Added Qualification in Sports Medicine and is an associate professor at the University of Colorado School of Medicine.

Dr. Gutierrez has been active in primary care musculoskeletal medicine since 1989. He has past

experiences as a team physician for University of Denver (DU) and Metro State College and has had international experience with the United States Olympic Committee (USOC) Sports Medicine Volunteer Program.

Since 1998, he has worked in both the Family Medicine and Orthopaedic departments at Denver Health as a non-surgical sports and musculoskeletal provider. During the winter, he also works with the East Grand Community Clinic and Emergency Center at Winter Park Resort.

In 2013, Dr. Gutierrez and the University of Colorado plan on launching a third site for the University's primary care sports medicine fellowship at Denver Health.



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## Recent Denver Health Orthopaedics Citations

Sebastian Weckbach, Michael A Flierl, Michael Blei, Clay Cothren Burlew, Ernest E Moore and Philip F Stahel. (2011). Survival following a vertical free fall from 300 feet: The crucial role of body position to impact surface. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 2011, 19:63 (25 October 2011).

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Management of talar neck fractures. Lin S, Hak DJ. *Orthopedics*. 2011 Sep;34(9):715-21.

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