

# Introducing: The OTA-OFC

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Classification Committee

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# What is the OTA-OFC?

- The OTA Open Fracture Classification



## A New Classification Scheme for Open Fractures

*Orthopaedic Trauma Association: Open Fracture Study Group*

- **Expert Panel**
- **5 essential categories**
- **skin injury, muscle injury, arterial injury, contamination, bone loss**

# OTA-OFC: 5 Categories

- **Skin**
- **Muscle**
- **Arterial**
- **Contamination**
- **Bone Loss**

J Orthop Trauma Volume 24, Number 8, August 2010

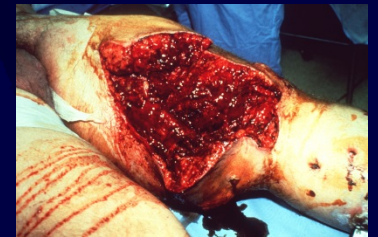
# OTA-OFC

## Skin

1. Can be approximated



2. Cannot be approximated



3. Extensive degloving



Compliments of Dr. James Kellam

# OTA-OFC

## Muscle

- 1. No muscle in area, no appreciable muscle necrosis, some muscle injury with intact muscle function**
- 2. Loss of muscle but the muscle remains functional, some localized necrosis in the zone of injury that requires excision, intact muscle-tendon unit**
- 3. Dead muscle, loss of muscle function, partial or complete compartment excision, complete disruption of a muscle - tendon unit, muscle defect does not approximate**

# OTA-OFC

## Arterial

1. No injury
2. Artery injury without ischemia
3. Artery injury with distal ischemia

# OTA-OFC

## Contamination

1. None or minimal contamination
2. Surface contamination (easily removed not embedded in bone or deep soft tissues)
3. a. Imbedded in bone or deep soft tissues  
b. High risk environmental conditions (barnyard, fecal, dirty water etc)



# OTA-OFC

## Bone Loss

1. None
2. Bone missing or devascularized but still some contact between proximal and distal fragments
3. Segmental bone loss

# OTA-OFC: Reliability? Yes !

ORIGINAL ARTICLE

## The OTA Open Fracture Classification: A Study of Reliability and Agreement

*Julie Agel, MA,\* Andrew R. Evans, MD,† John Lawrence Marsh, MD,‡ Thomas A. DeCoster, MD,§ Douglas W. Lundy, MD,¶ James F. Kellam, MD,|| Clifford B. Jones, MD,# and Gregory L. DeSilva, MD\*\**

- **Diverse multinational cohort of orthopedic surgeons and residents**
- **Reviewed 12 videos of open fracture cases**
- **Compared reliability to Gustilo-Anderson System**

**J Orthop Trauma Volume 27, Number 7, July 2013**

# OTA-OFC

- **Can it predict treatment?**
  - Retrospective review of 356 patients at a level 1 trauma center
  - Suggest that the subclassification of 5 categories has potential advantages of determining treatment(s) which may be related to short term outcome

**Agel et al. JOT Volume 28, Number 5, May 2014**

Does the OTA Open Fracture Classification Predict the Need for Limb Amputation? A Retrospective Observational Cohort Study on 512 Patients

- **Retrospective review of 512 open fractures**
- **Gustilo-Anderson classification did not correlate with outcome**
- **OTA-OFC skin injury component was an independent predictor of limb amputation**

- For questions or comments, please send to [ota@ota.org](mailto:ota@ota.org)

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