

# International Society for Snowsports Medicine



**35<sup>th</sup> SITEMSH congress 2016**

**Inawashiro – Fukushima  
JAPAN  
March 13<sup>th</sup>-17<sup>th</sup> 2016**



# Acromio-Clavicular Dislocations Epidemiology

**Dr Aleix Vidal**

**Baqueira-Beret Medical Center**

**1992 - 2015**

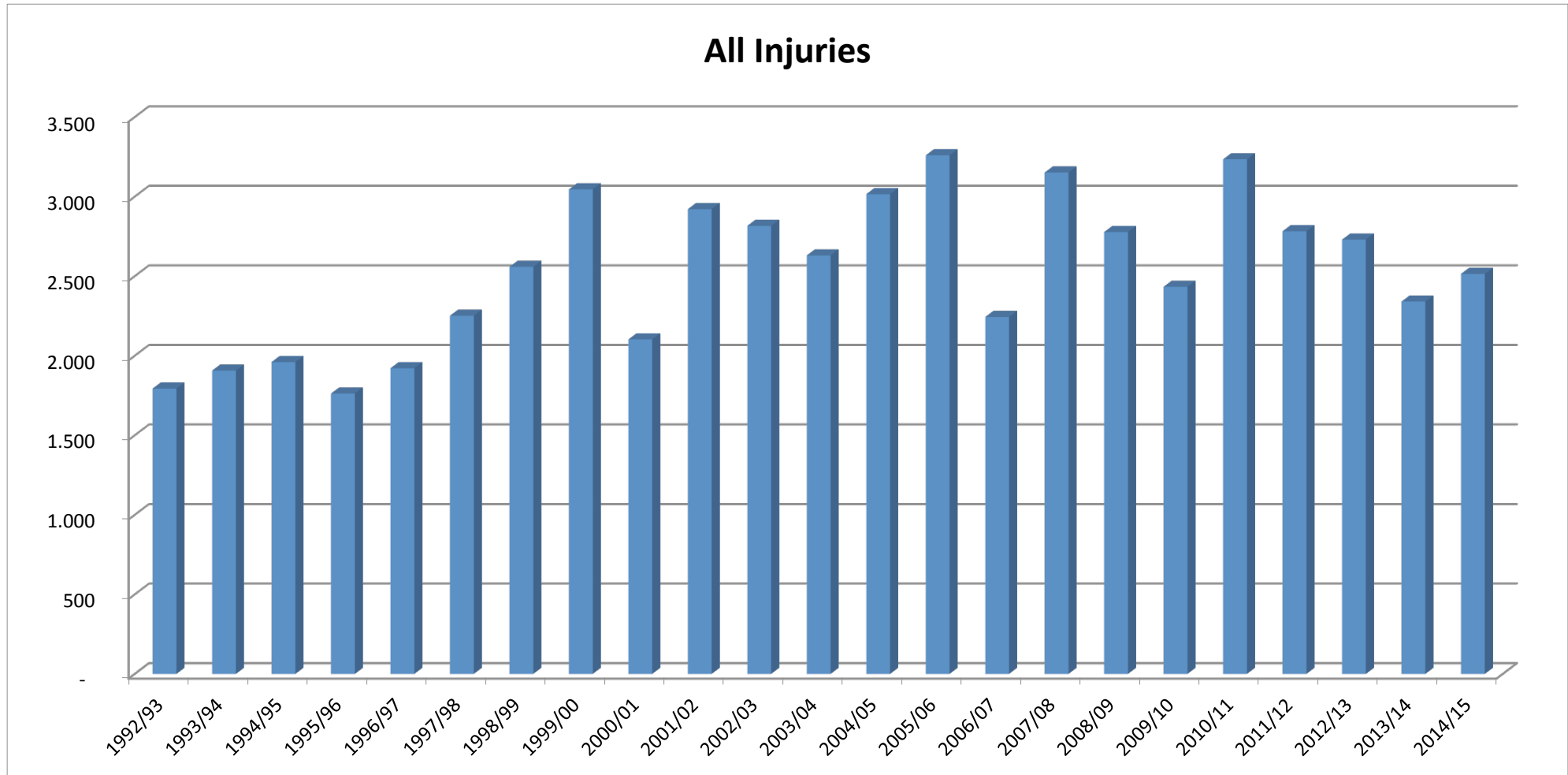
**Baqueira – Beret Ski Resort**

**58.142 ski and snowboard injuries**



# Injuries per season

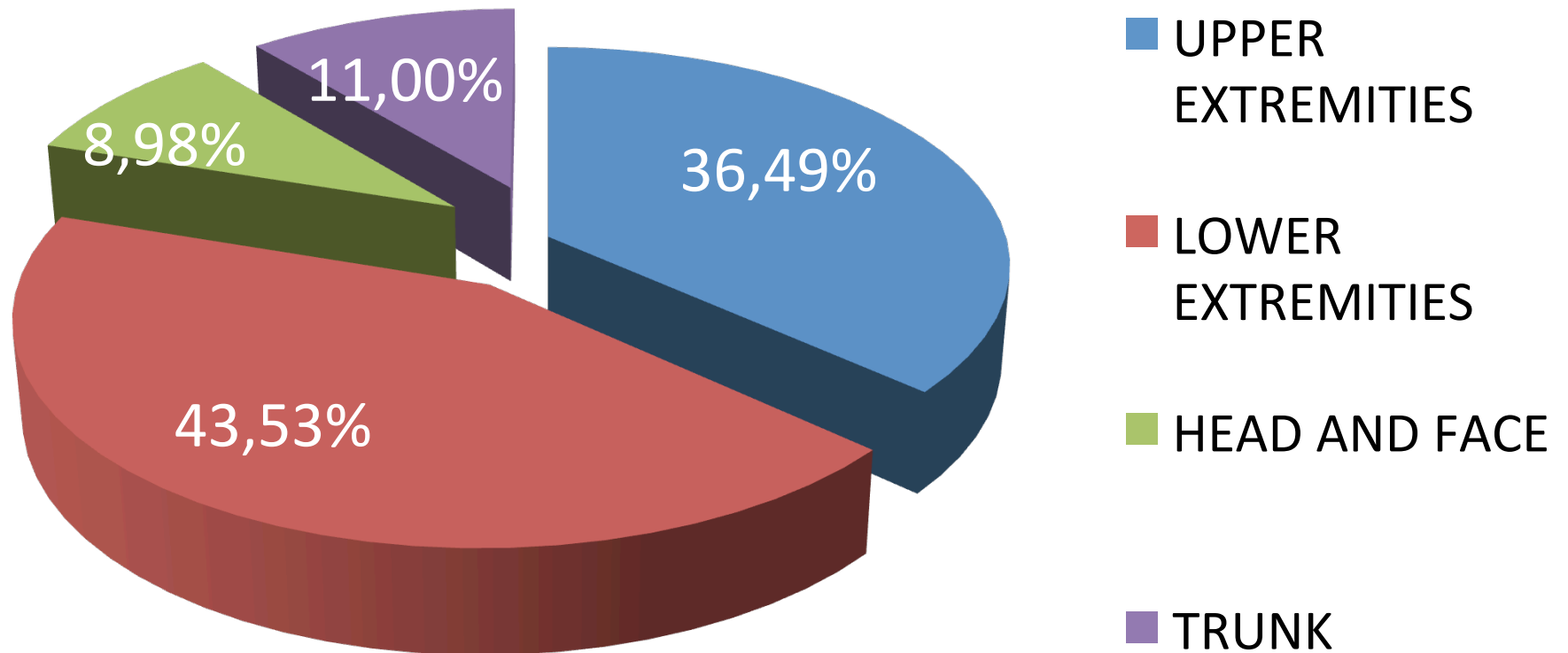
## All Injuries (units)



# Distribution per anatomical region

## Injuries per area

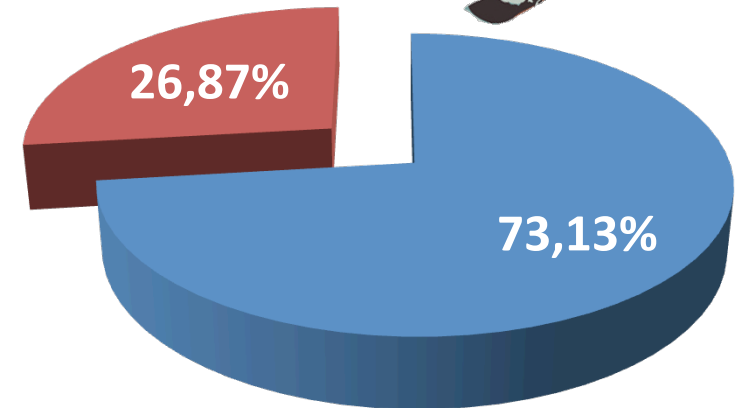
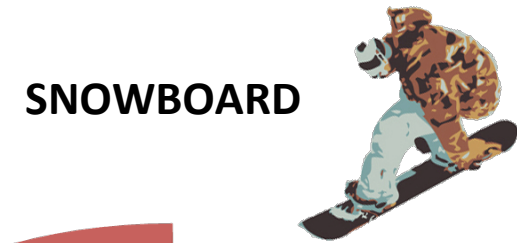
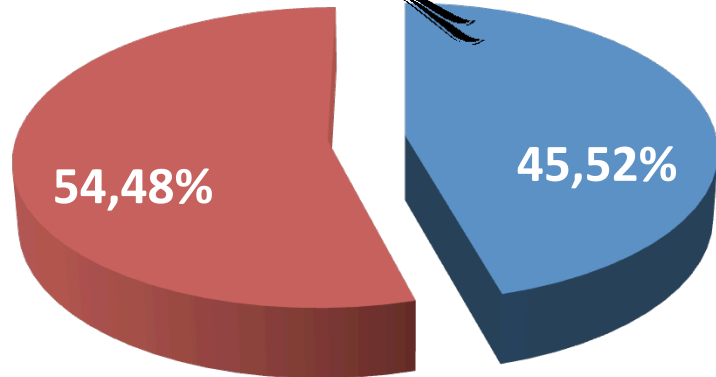
**1992 - 2015**



# Distribution per anatomical region

## Upper/Lower Extremities

**1995 - 2015**



# Probability of injuries

## Distribution by Gender

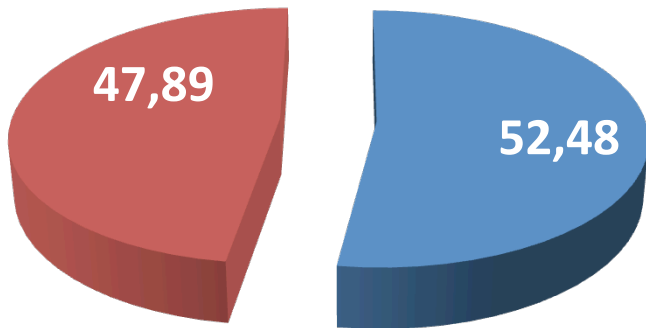


**1995 - 2015**



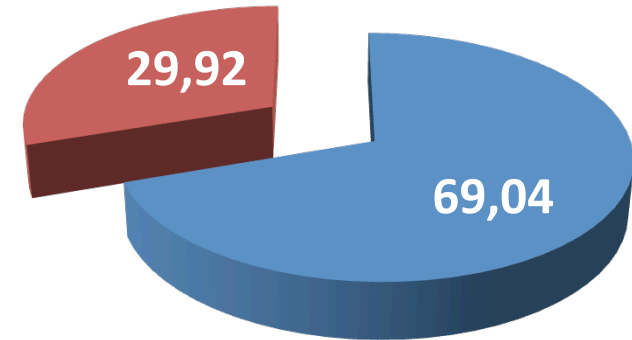
**ALPINE SKI INJURIES BY GENDER**

**SNOWBOARD INJURIES BY GENDER**



■ % MALE  
ALPINE SKI

■ % FEMALE  
ALPINE SKI



Mean Age: 34,8

Mean Age: 27,5

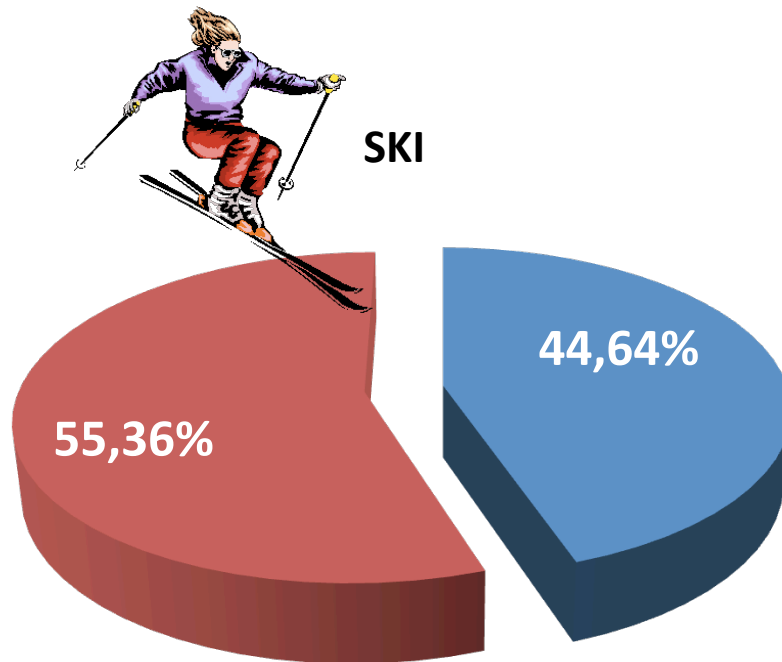
# Acromio-Clavicular Dislocations



# Types of Injuries

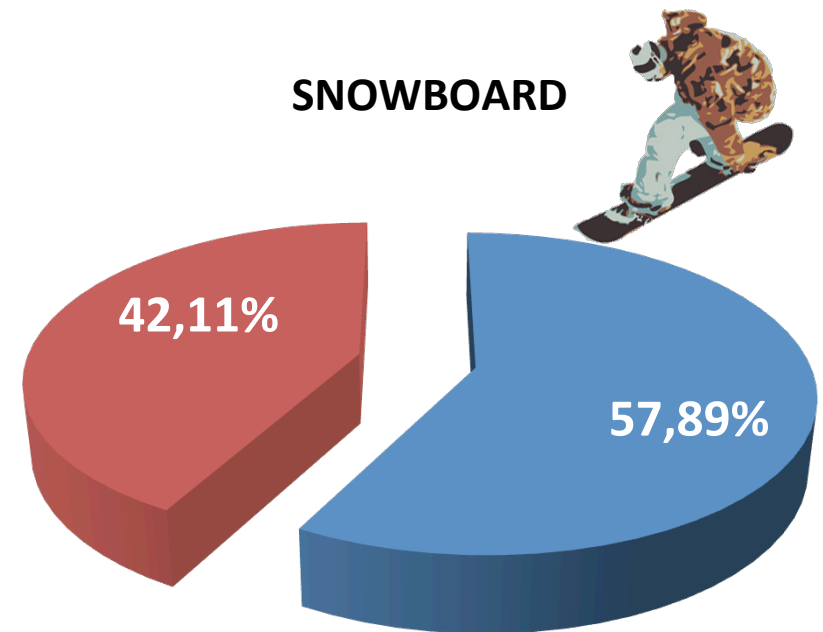
## 2.635 Shoulder Injuries (GH+AC)

1995 - 2015



■ AC

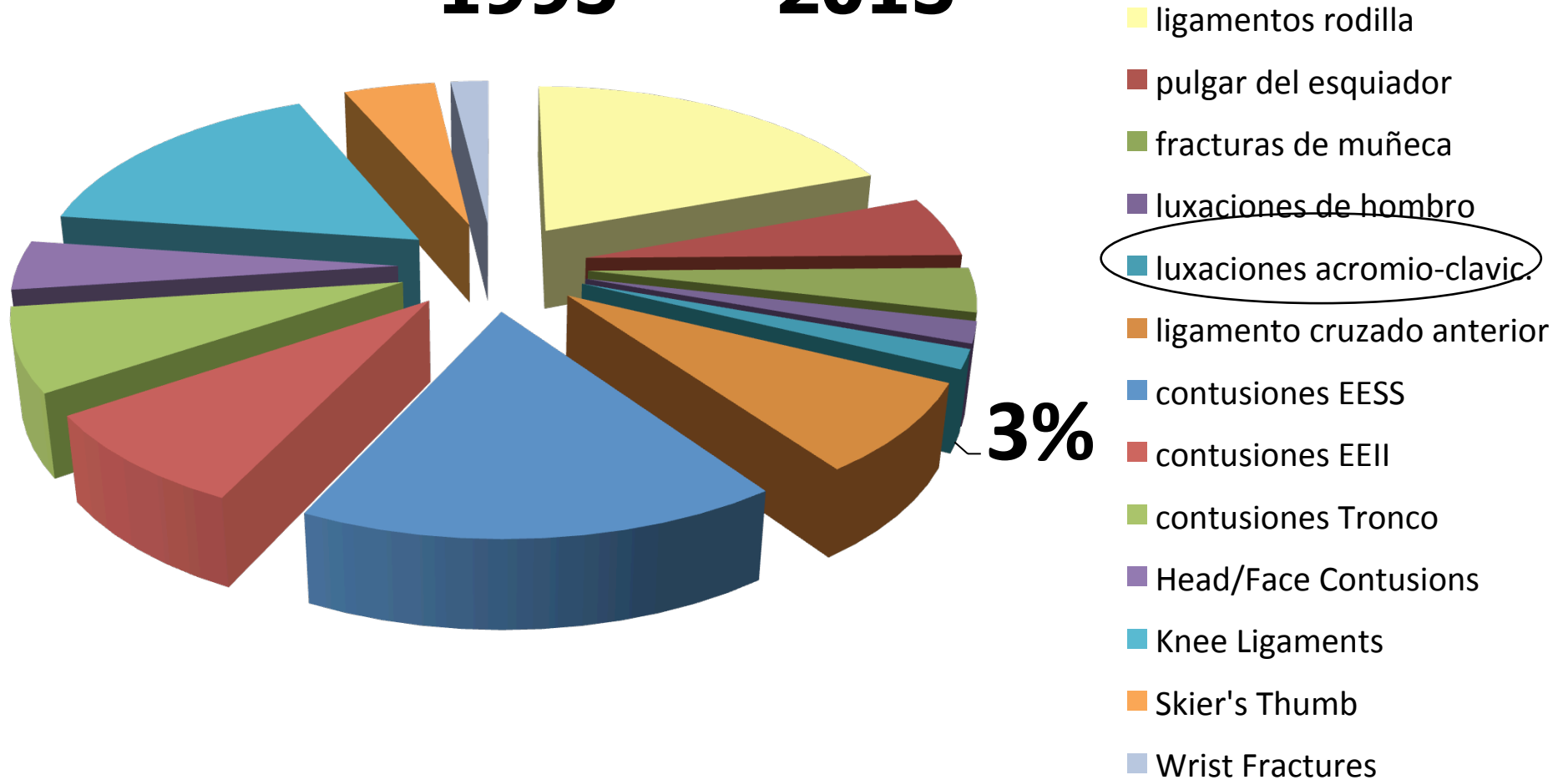
■ GH



# Types of Injuries

## 1.247 Acromio Clavicular Dislocations

1995 - 2015

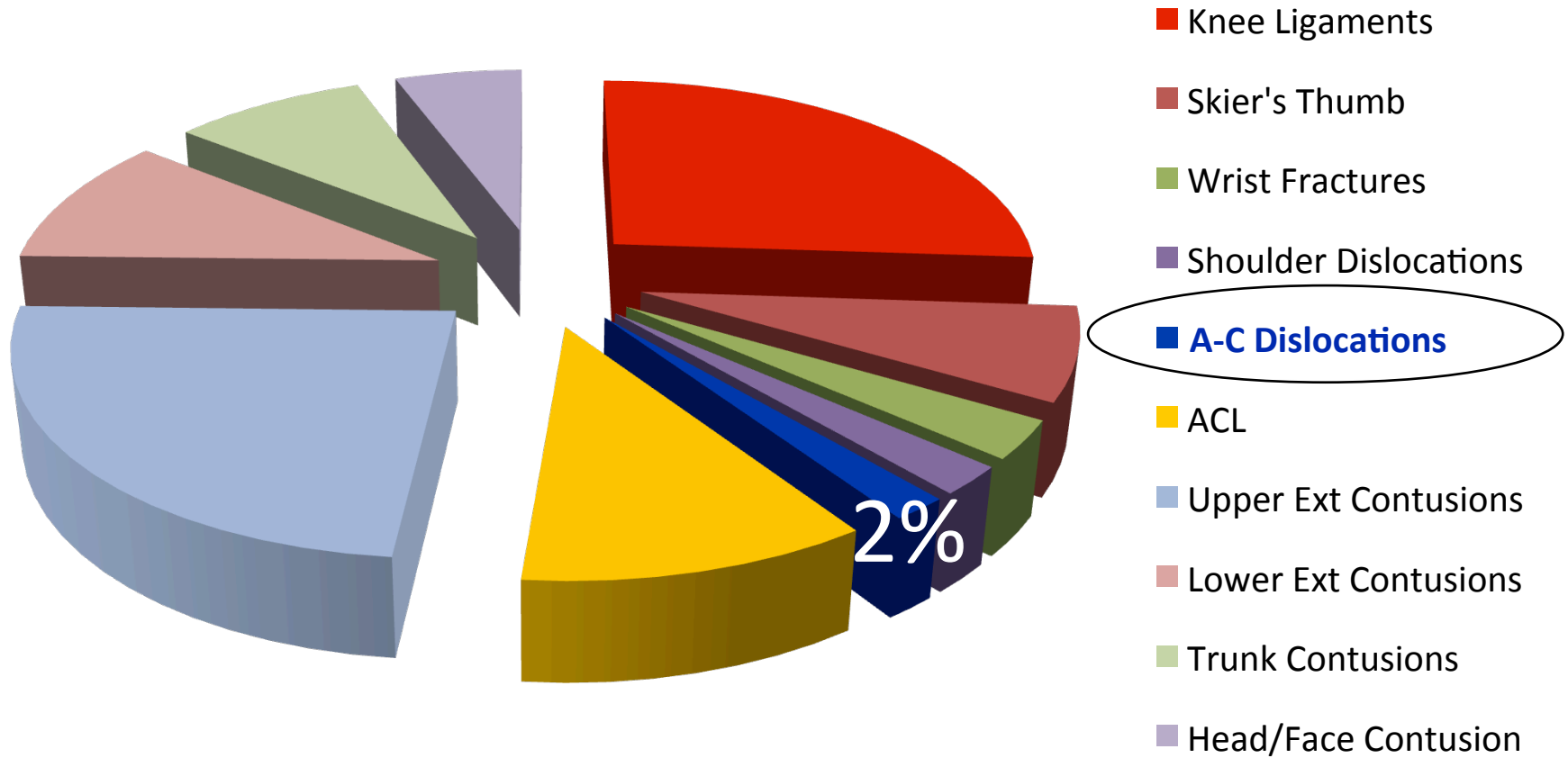


# Types of Injuries

## A-C Dislocations in Ski



SKI Most Common Injuries

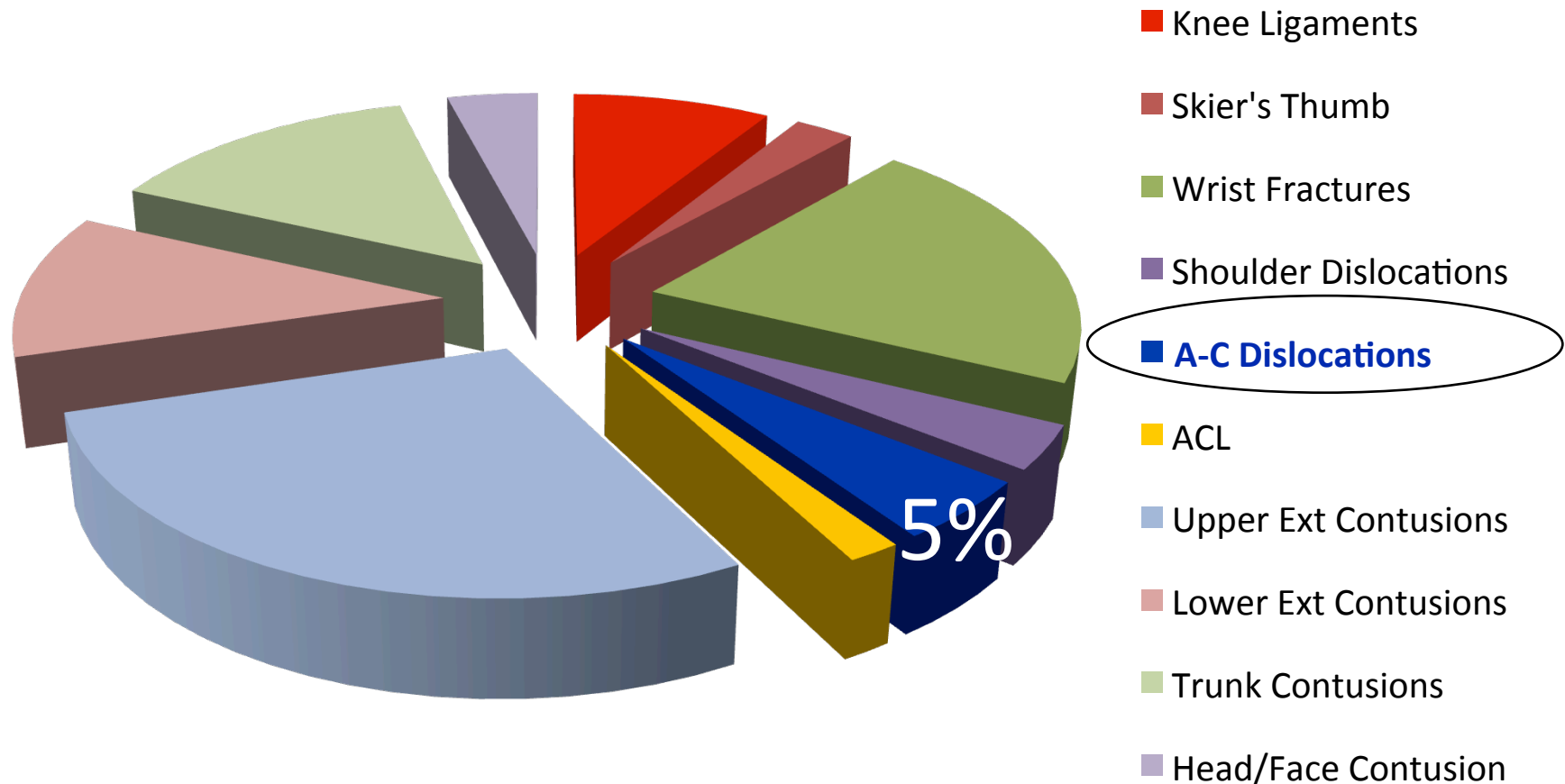


# Types of Injuries

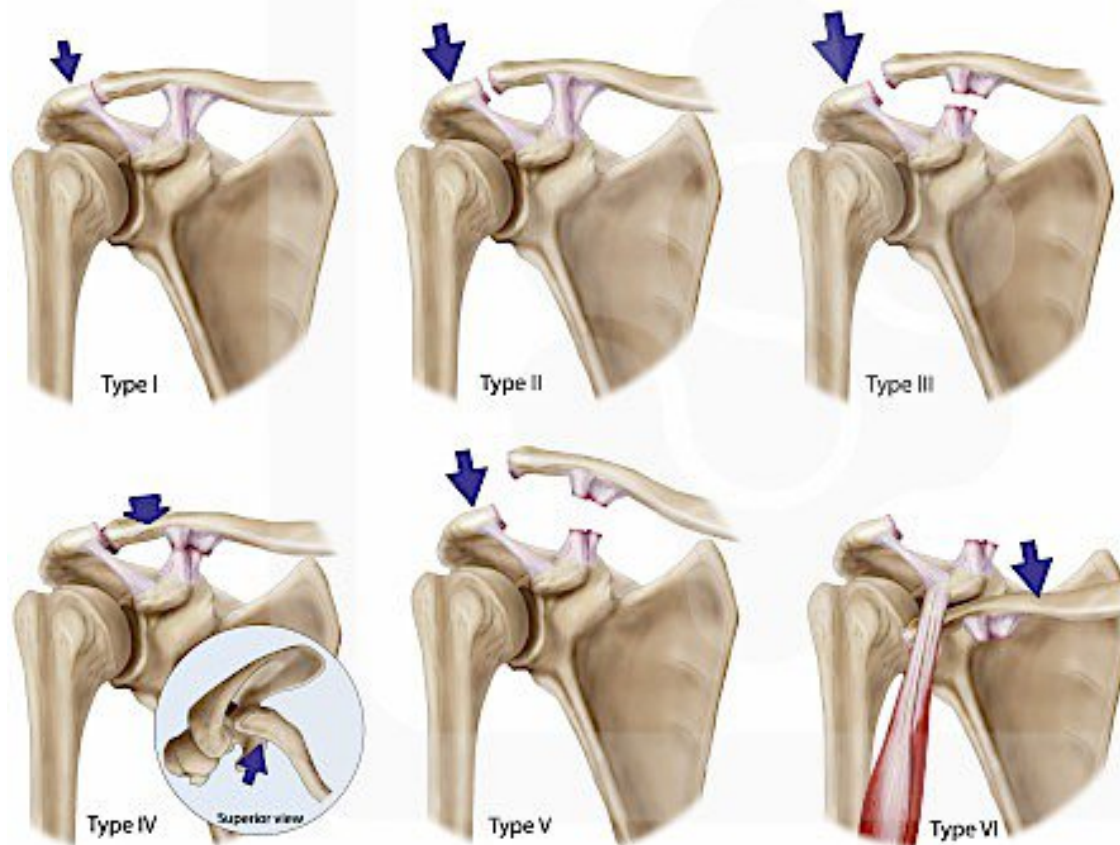
## A-C Dislocations in Snowboard



SNOWBOARD Most Common Injuries



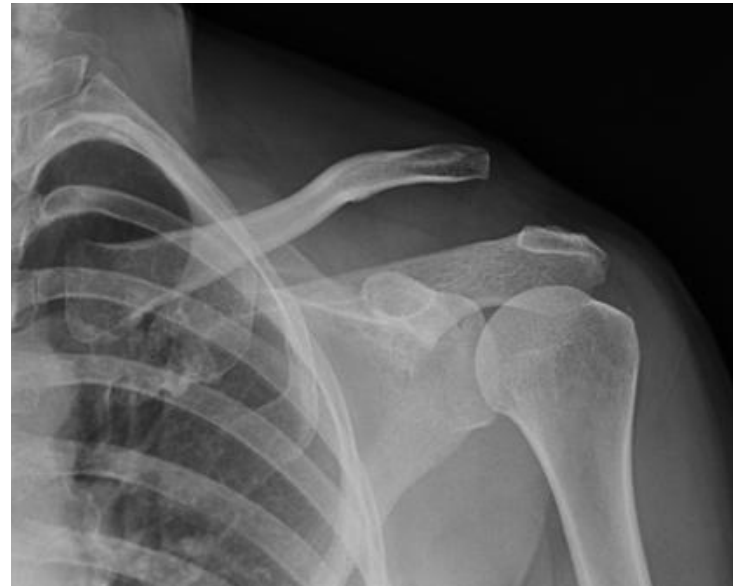
# Rockwood Classification



# Types of Injuries

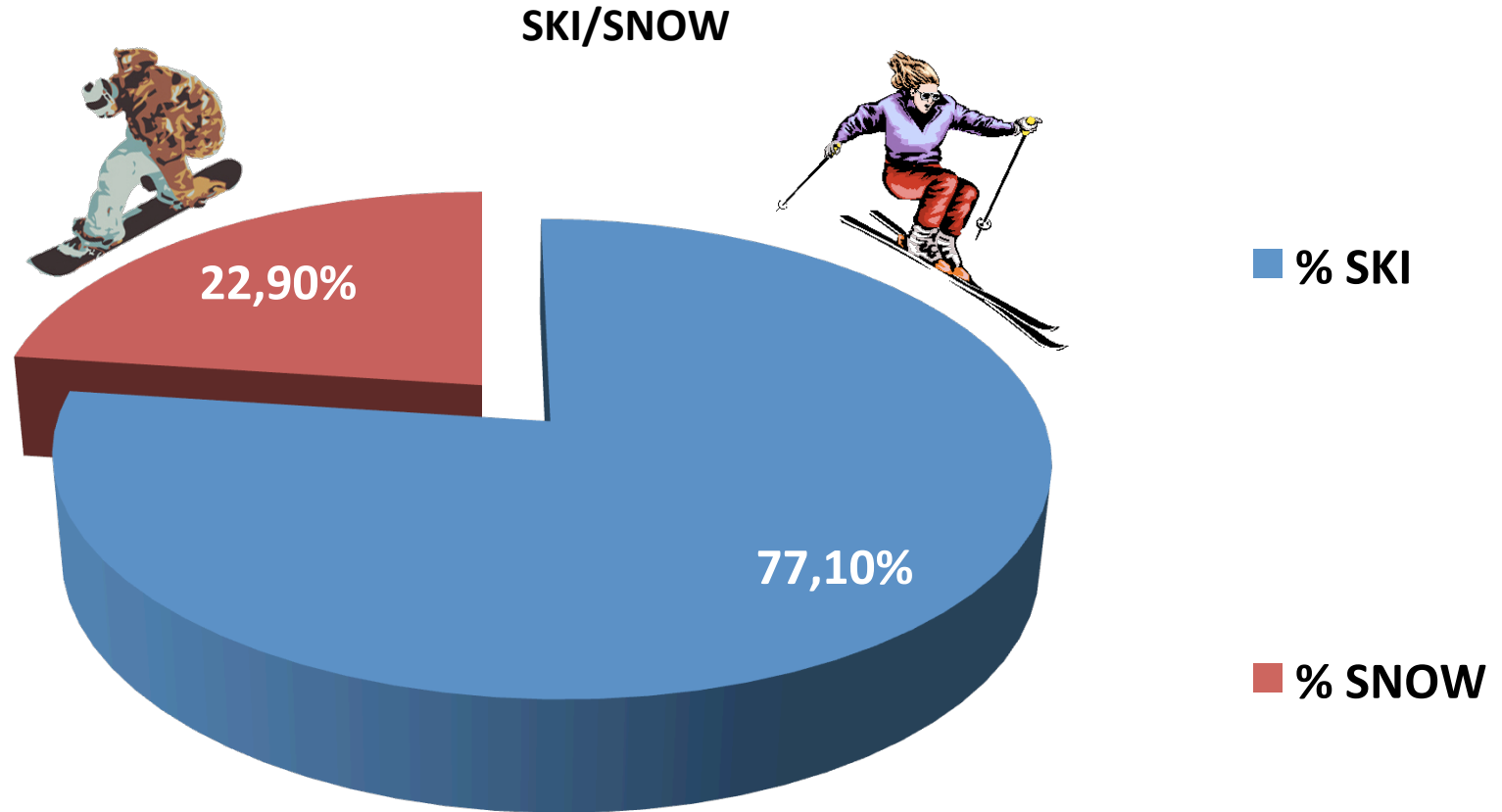
**262 A-C Dislocation since season 2010/2011**

**2011 - 2015**



# Types of Injuries

## 262 A-C Dislocation since season 2010/2011



# Probability of injuries

## All Injuries Distribution by Gender

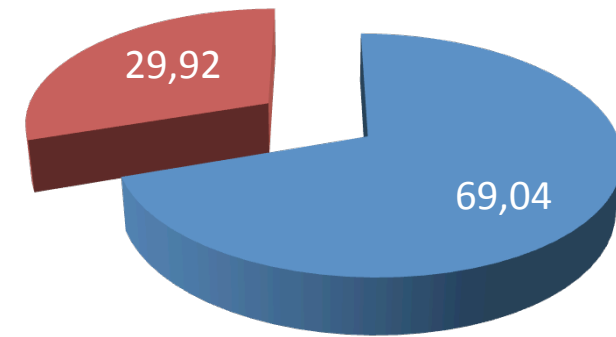
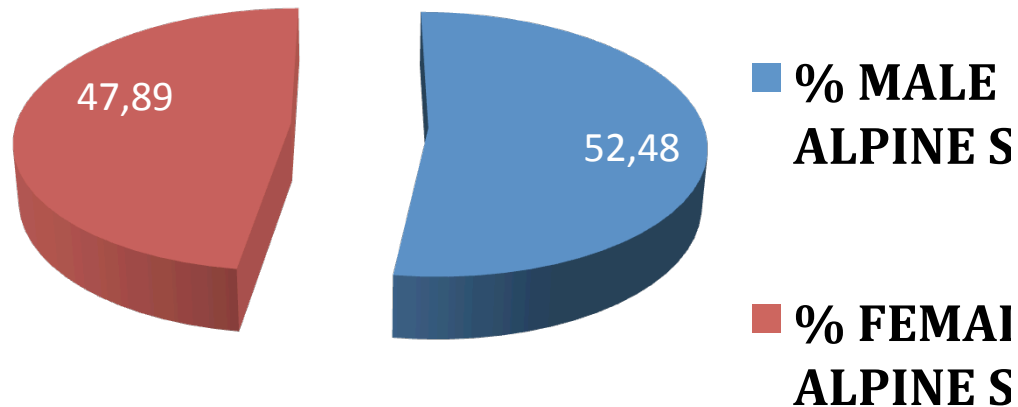


**2011 - 2015**



**ALPINE SKI INJURIES BY GENDER**

**SNOWBOARD INJURIES BY GENDER**



Mean Age: 34,8

Mean Age: 27,5

# Probability of injuries

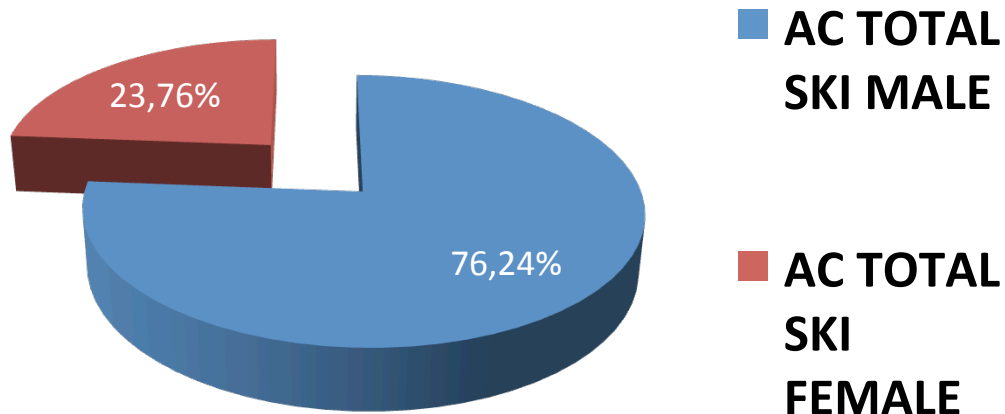
## 262 A-C Dislocation Distribution by Gender



2011 - 2015

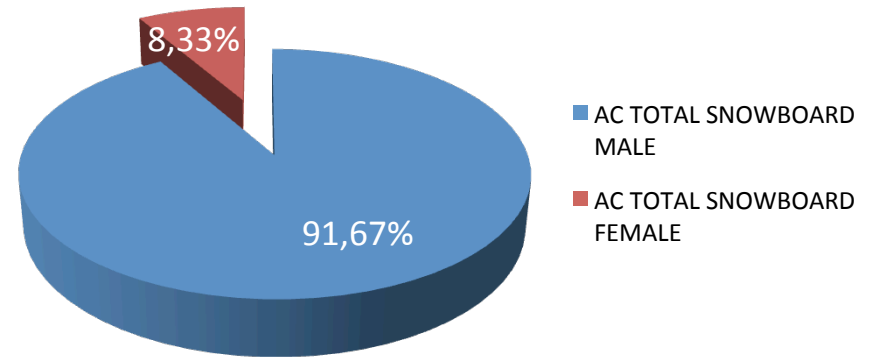


ALPINE SKI A-C INJURIES BY GENDER



Mean Age: 43,3

SNOWBOARD A-C INJURIES BY GENDER

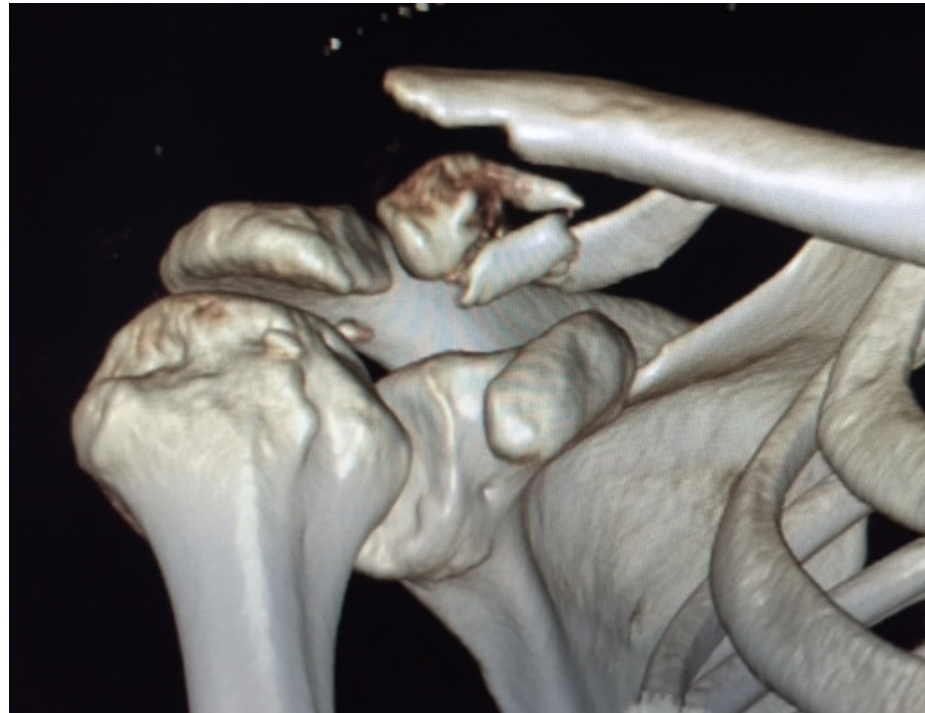
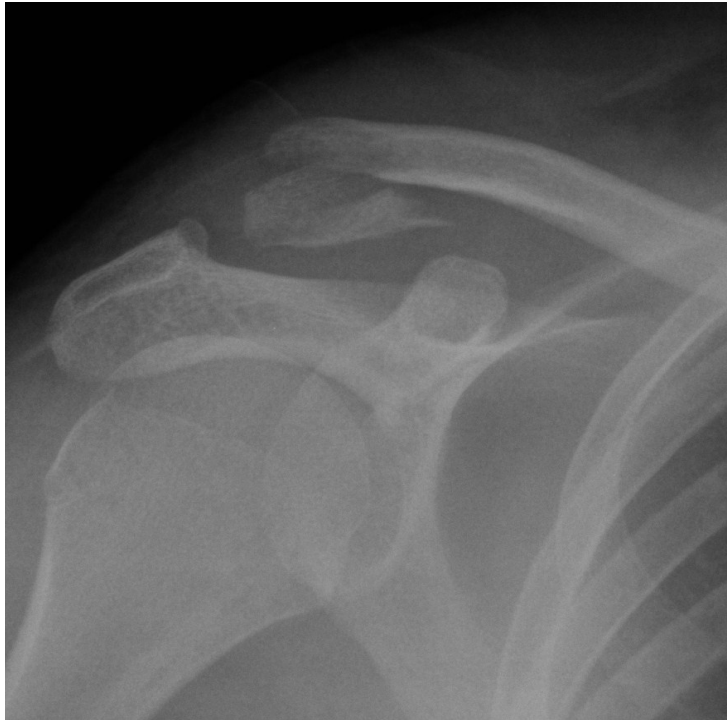


Mean Age: 33,7

# Types of Injuries

49 Distal Clavicle Fractures since season 2010/2011

**2011 - 2015**

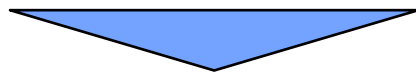
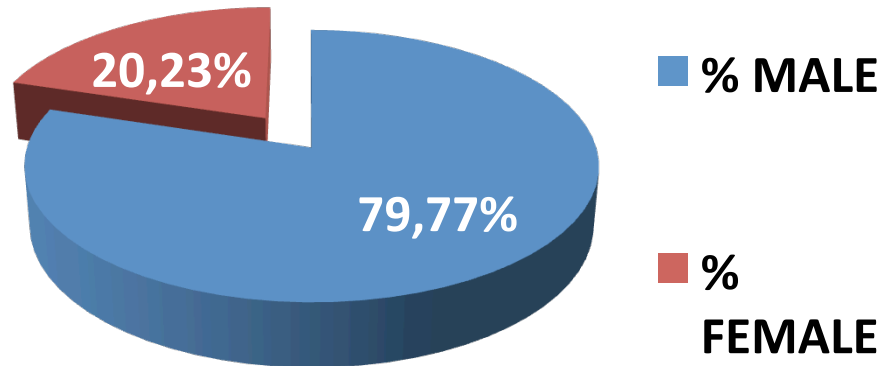


# Types of Injuries

262 A-C Dislocation since season 2010/2011

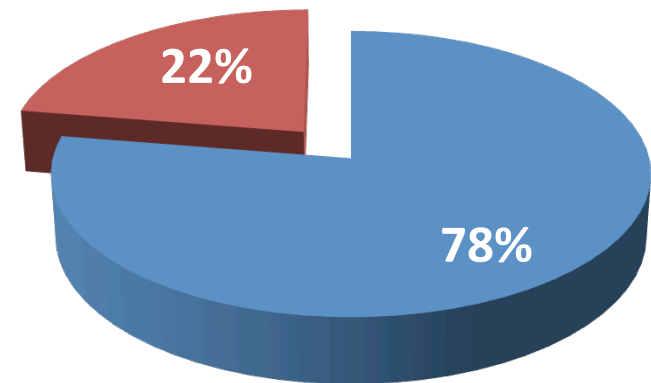
49 Distal Clavicle Fractures since season 2010/2011

## A-C Dislocation



**Mean Age 41,06**

## Distal Clavicle Fracture



**Mean Age 41,51**

# Probability of injuries

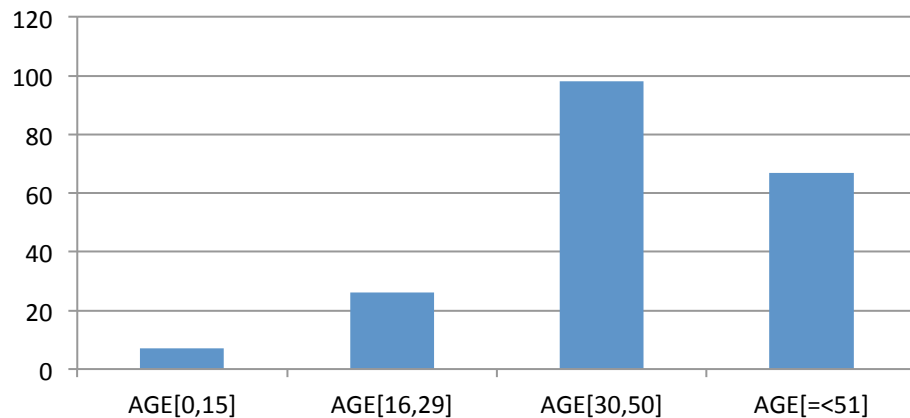
## 262 A-C Dislocation Distribution by Age



**2011 - 2015**

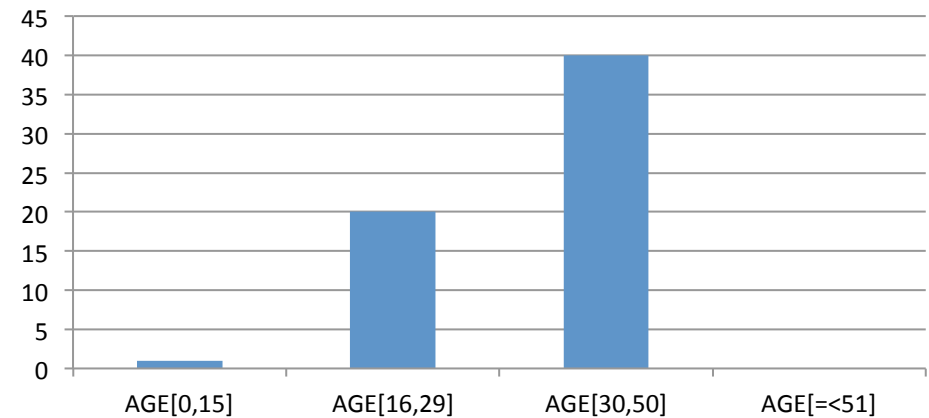


**ALPINE SKI A-C DISLOCATION AGE DISTRIBUTION**



Mean Age: 43,3

**SNOWBOARD A-C DISLOCATION AGE DISTRIBUTION**

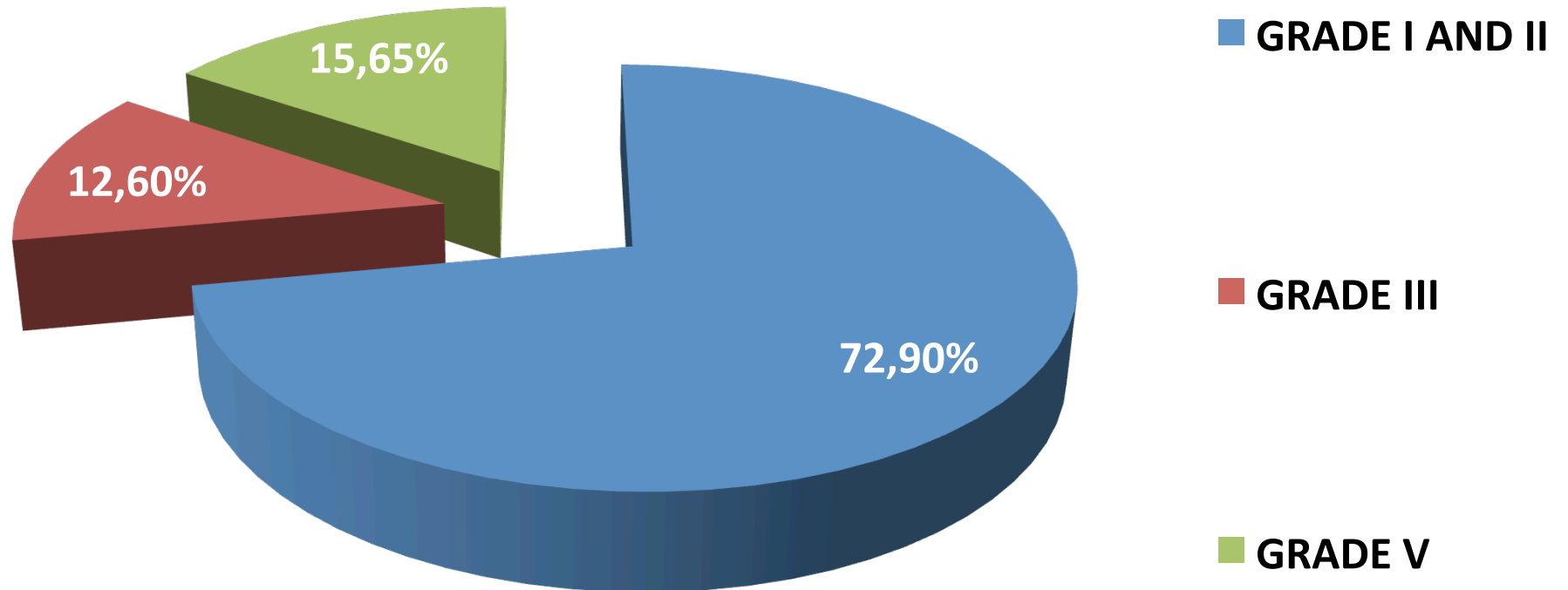


Mean Age: 33,7

# Types of Injuries

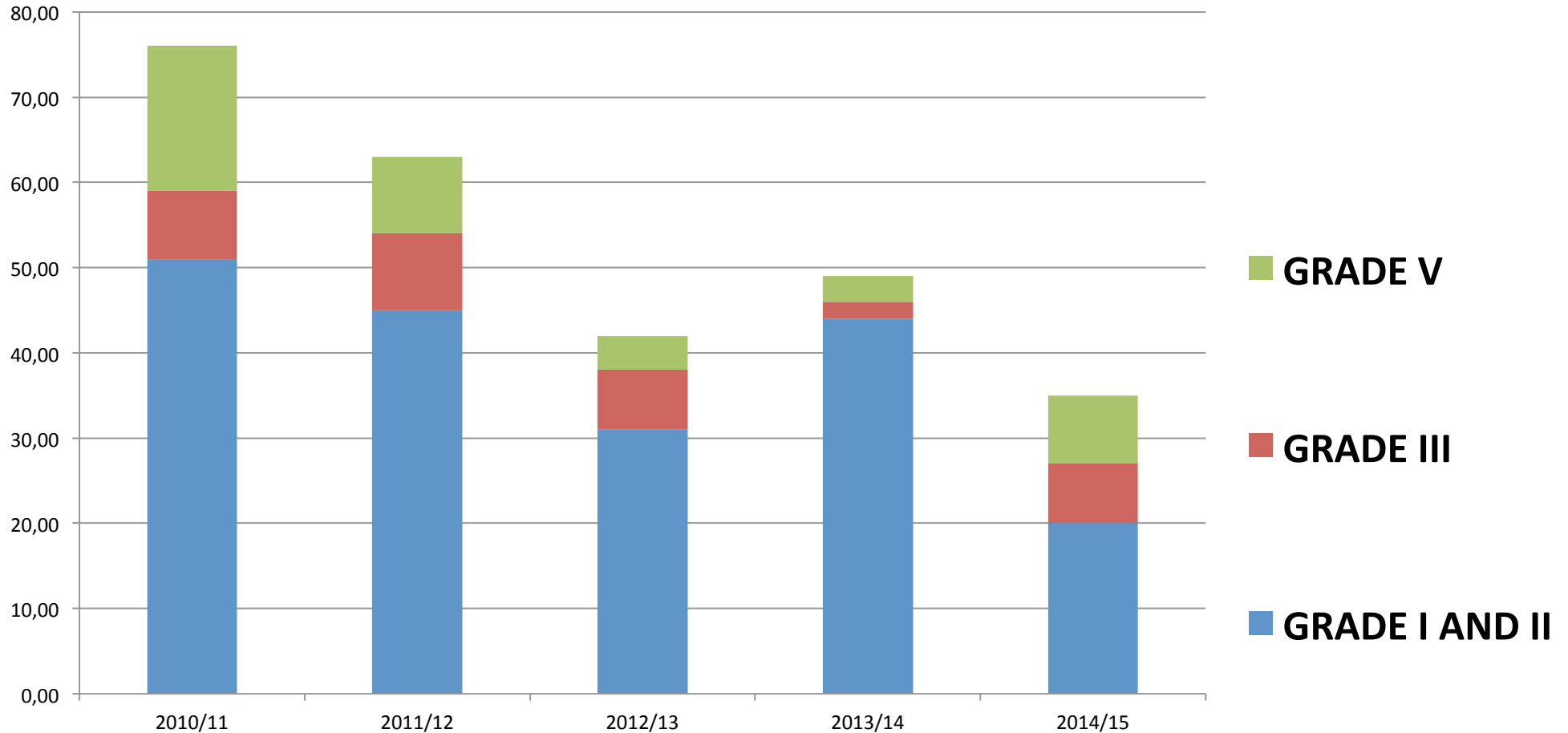
## 262 A-C Dislocation Grade Distribution

AC Dislocation Grade Distribuion (TOTAL)



# Types of Injuries

## 262 A-C Dislocation Grade Distribution per Season

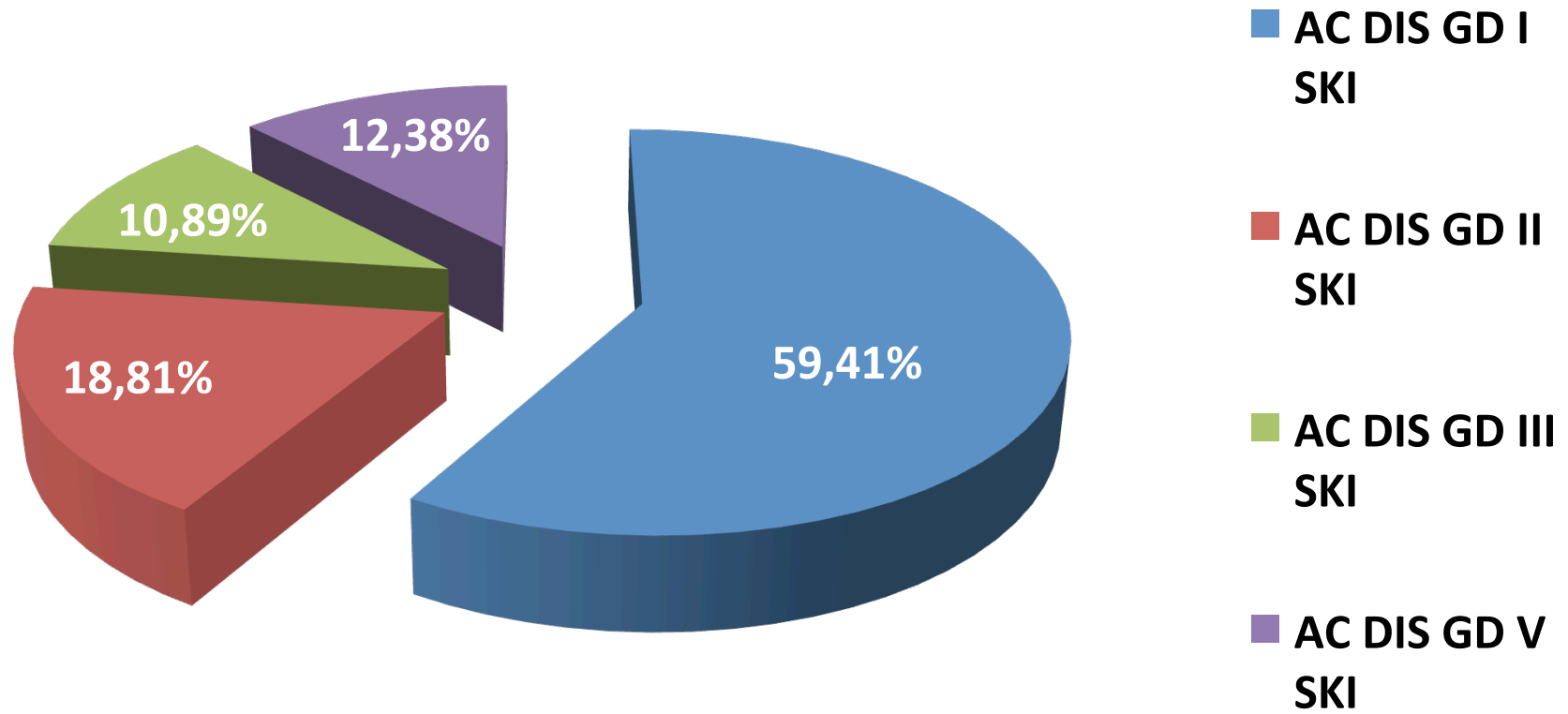


# Types of Injuries

## 262 A-C Dislocation Grade Distribution



AC Dislocation Grade Distribution (SKI)

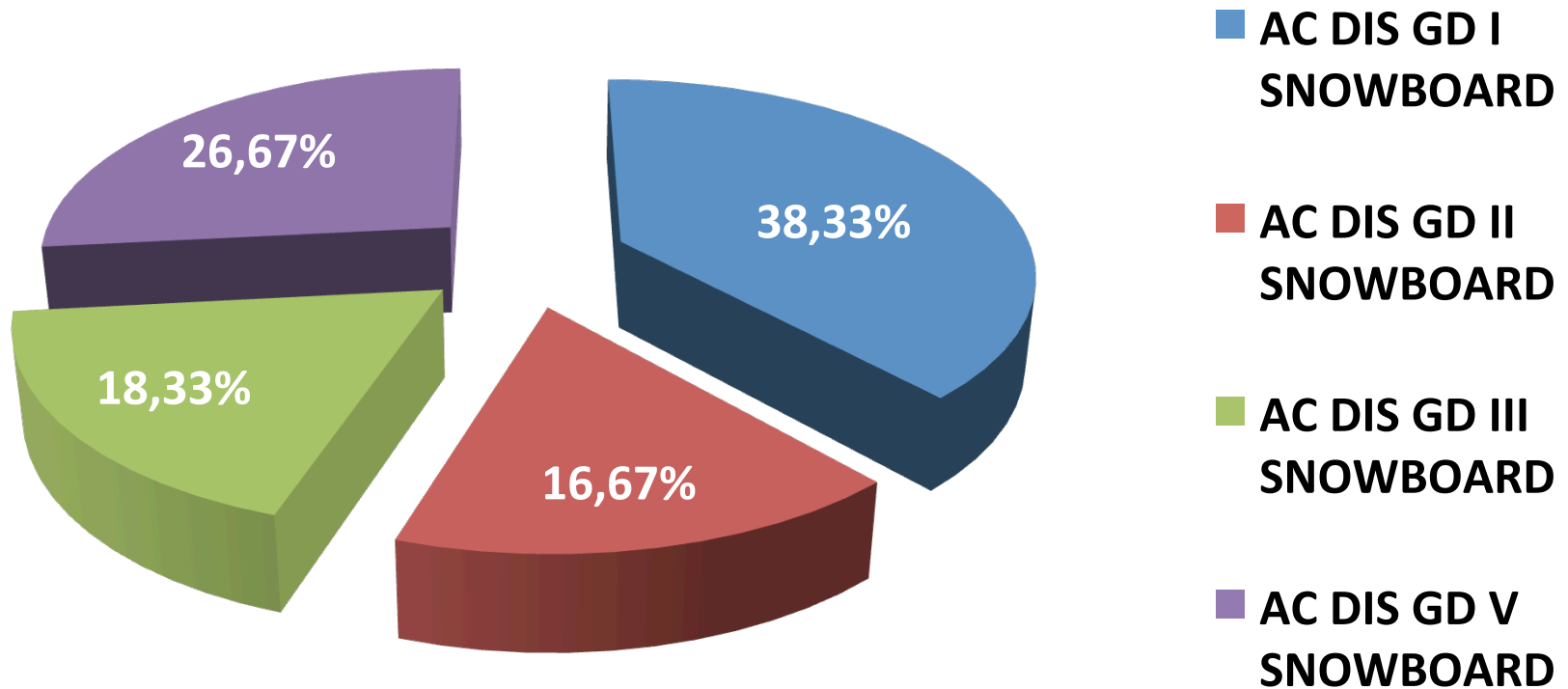


# Types of Injuries

## 262 A-C Dislocation Grade Distribution

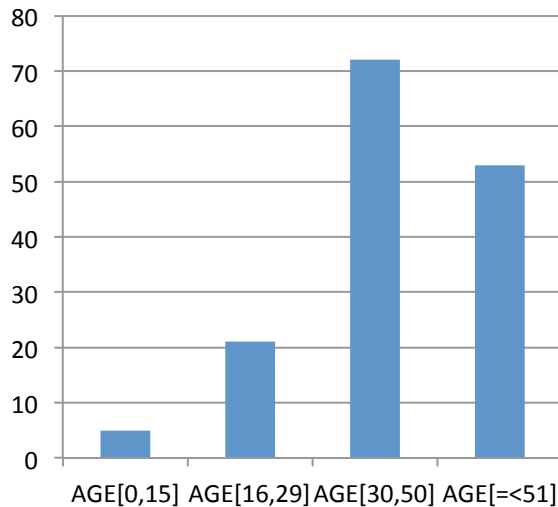


AC Dislocation Grade Distribution (SNOW)

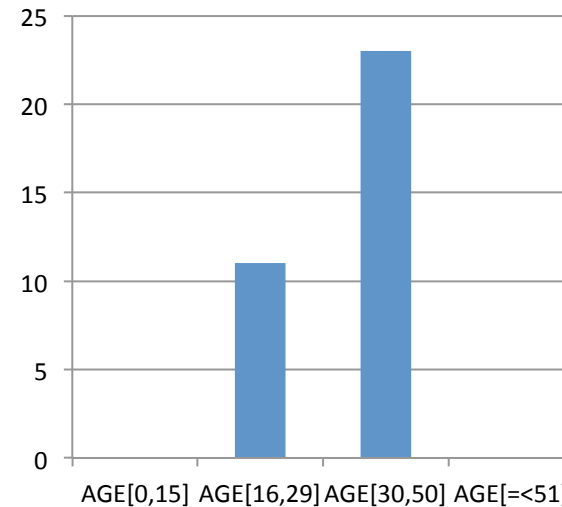


# Types of Injuries

## A-C Dislocation Grade I and II Age Distribution



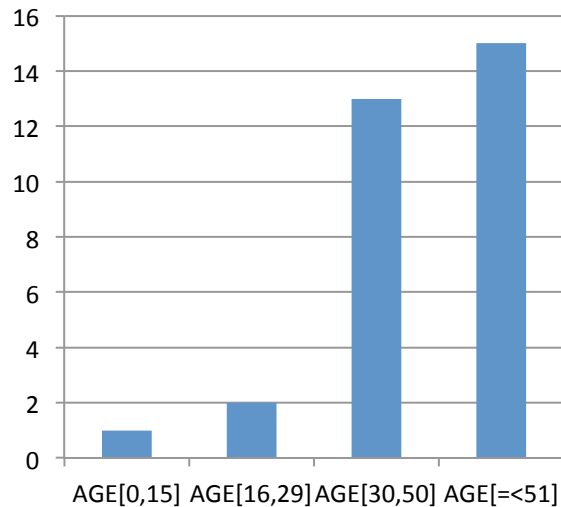
■ ALPINE SKI  
GRADE I  
AND II AGE  
DISTRIBUTI  
ON



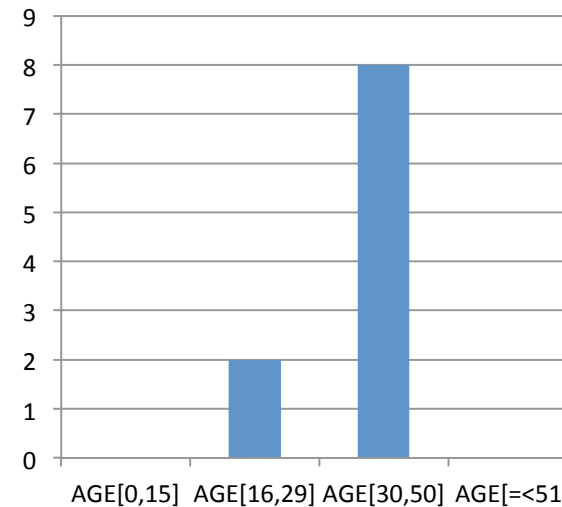
■ SNOWBOA  
RD GRADE  
I AND II  
AGE  
DISTRIBUTI  
ON

# Types of Injuries

## A-C Dislocation Grade III Age Distribution



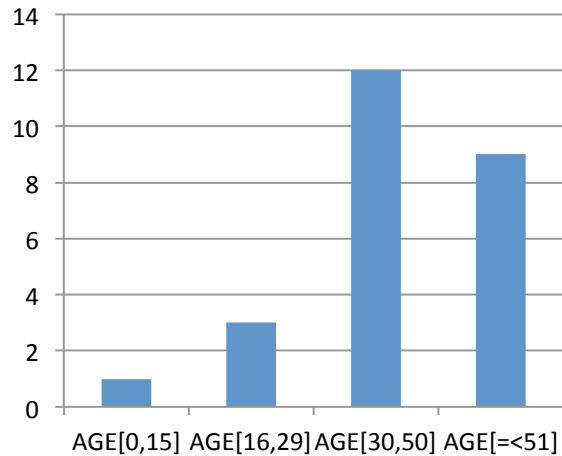
■ ALPINE SKI  
GRADE III  
AGE  
DISTRIBUTI  
ON



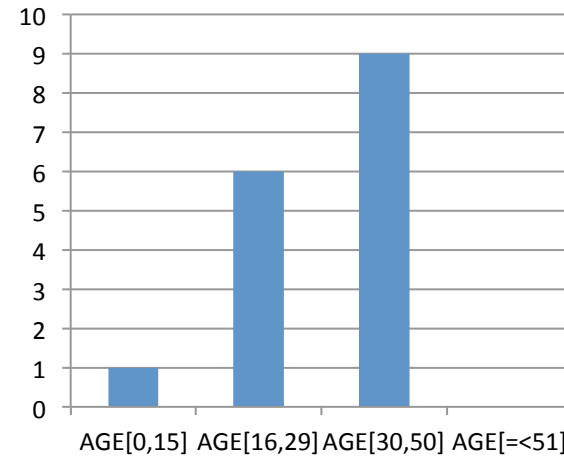
■ SNOWBOA  
RD GRADE  
III AGE  
DISTRIBUTI  
ON

# Types of Injuries

## A-C Dislocation Grade IV and V Age Distribution



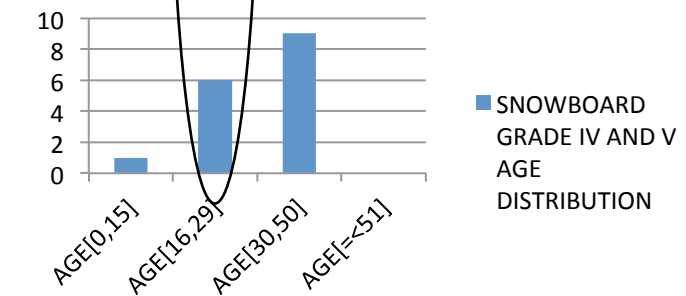
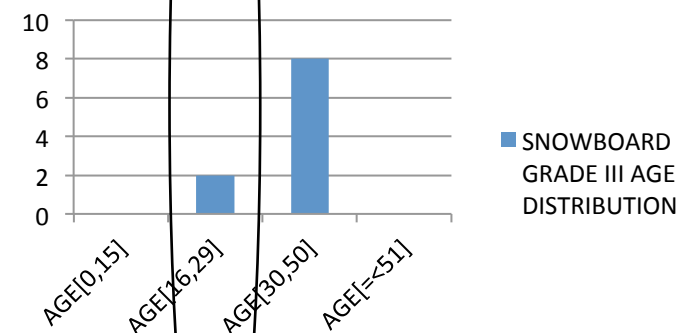
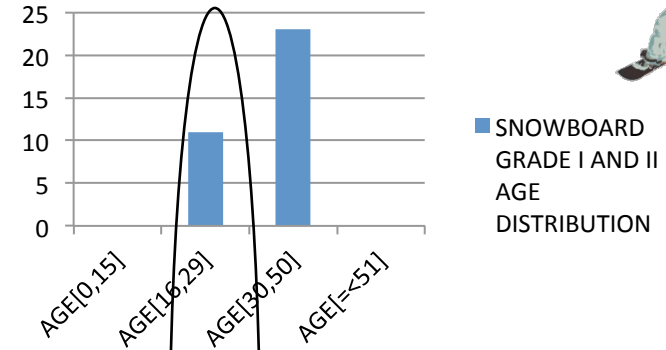
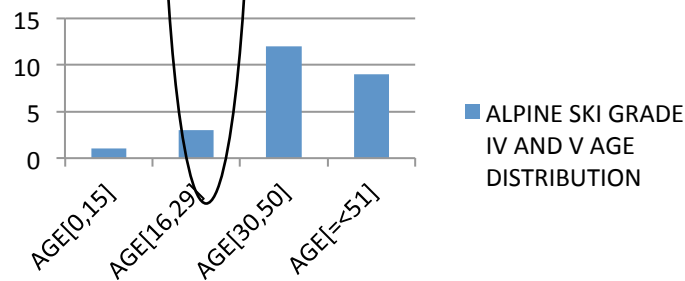
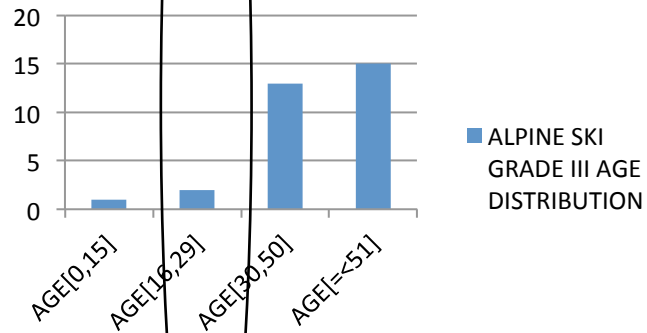
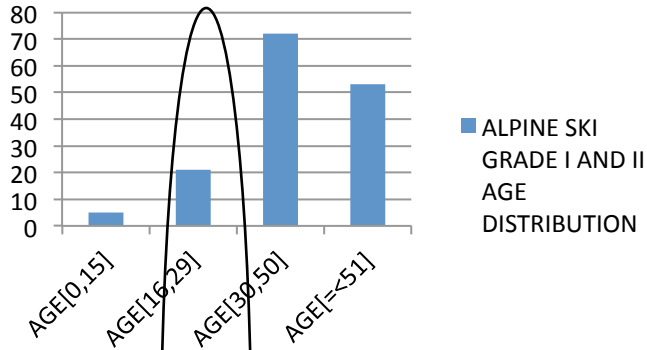
■ ALPINE SKI  
GRADE IV  
AND V AGE  
DISTRIBUTI  
ON



■ SNOWBOA  
RD GRADE  
IV AND V  
AGE  
DISTRIBUTI  
ON

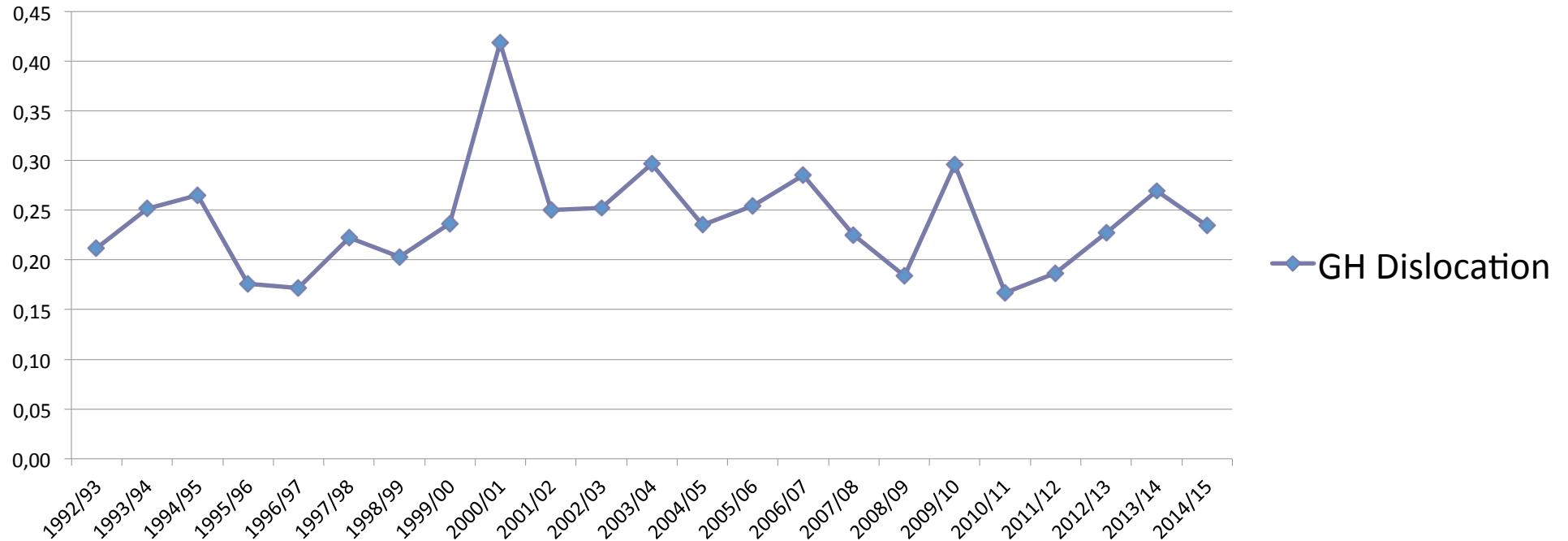
# Types of Injuries

## A-C Dislocation Grades and Age Distribution



# Types of Injuries

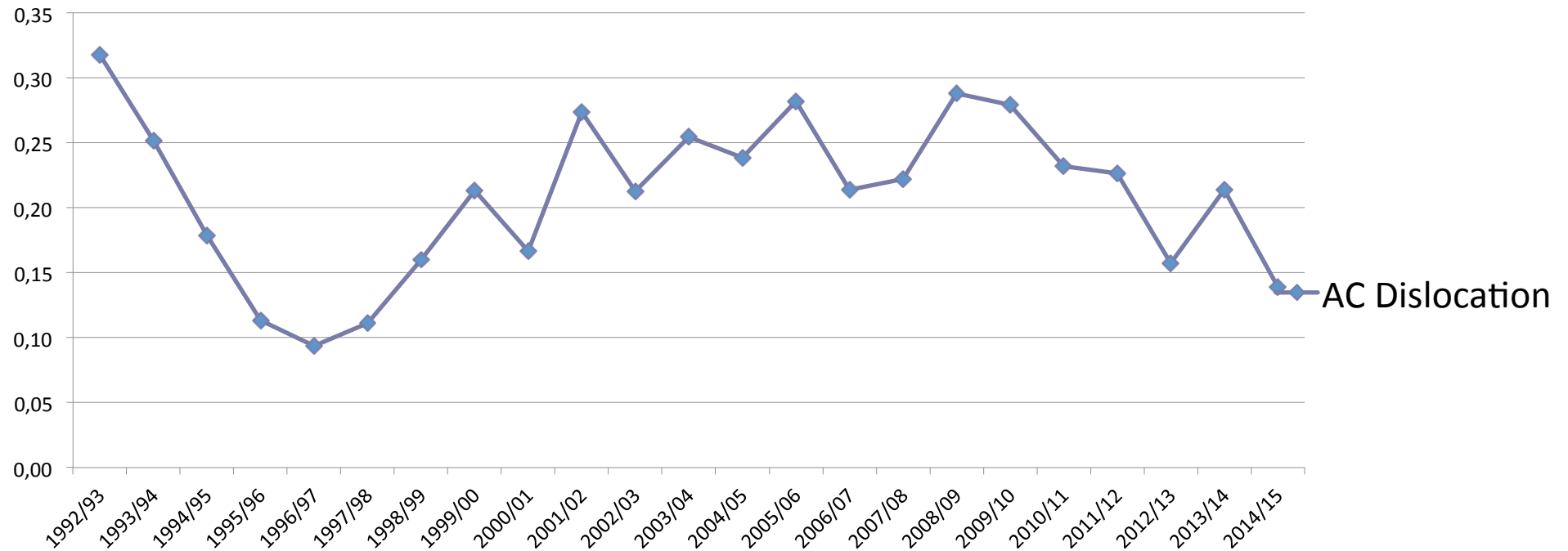
## 1.388 Gleno-Humeral Dislocations



Gleno Humeral Dislocations intervals:  
Between 0,17% & 0,42%.

# Types of Injuries

## 1.247 Acromio-Clavicular Dislocations



Acromio Clavicular dislocations intervals:  
between 0,09% & 0,3%.

# A-C Dislocations

## Conclusions

- Upper Extremity Injuries are more frequent in Snowboard
- A-C Dislocations Represent 3% of total injuries in our MC since 1992
- A-C Dislocations are more common in Snowboard

# A-C Dislocations

## Conclusions

- Males are more frequently involved in A-C dislocations, with a mean age of 43 years for Skiers and 33 for Snowboarders
- 70% of A-C Dislocations were Grade I&II
- A-C Dislocations and Distal Third Clavicle Fractures coincide in Age and Gender distribution

# Thank you for your attention

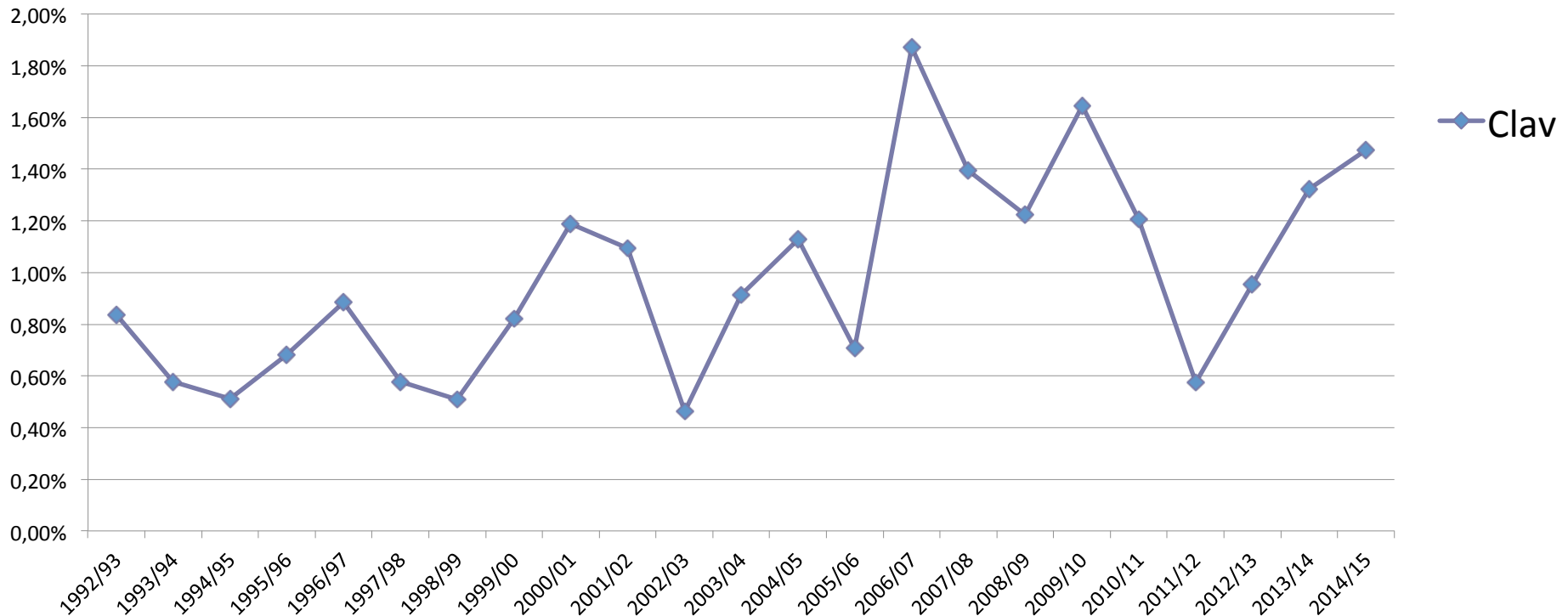


traumatologia i medicina  
d'esports d'hivern

Dr. Aleix Vidal i col·laboradors

# Types of Injuries

## 576 Collar Bone Fractures

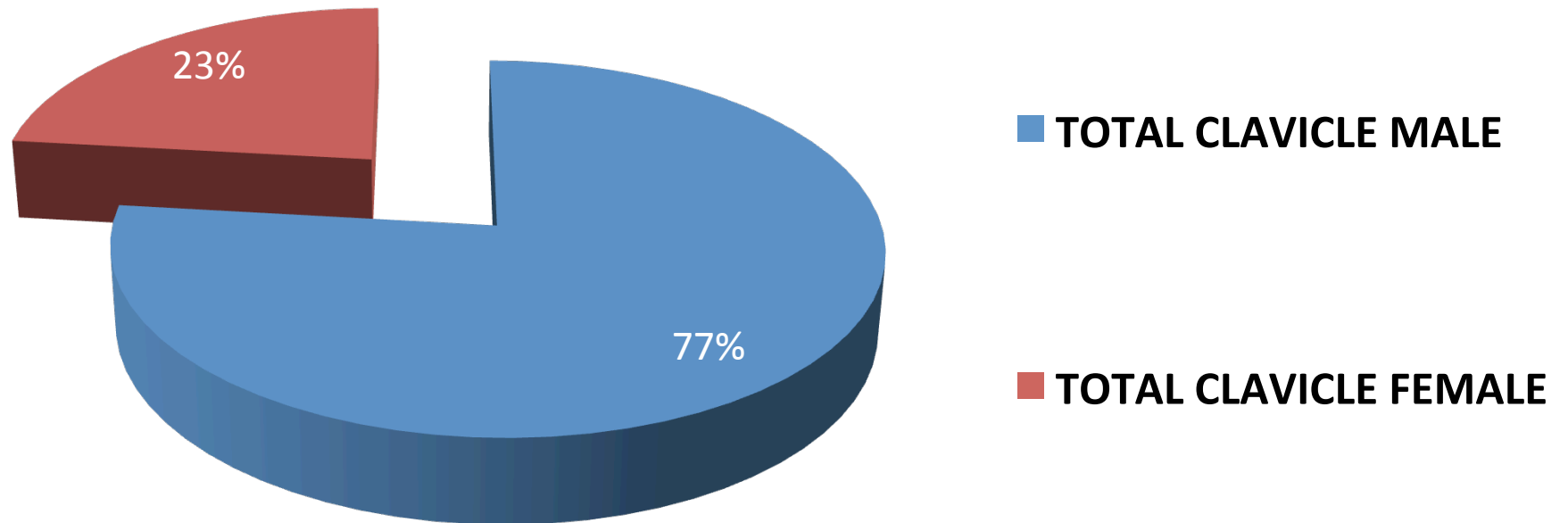


Collar Bone fractures intervals:  
between 0,46% & 1,87%.

# Types of Injuries

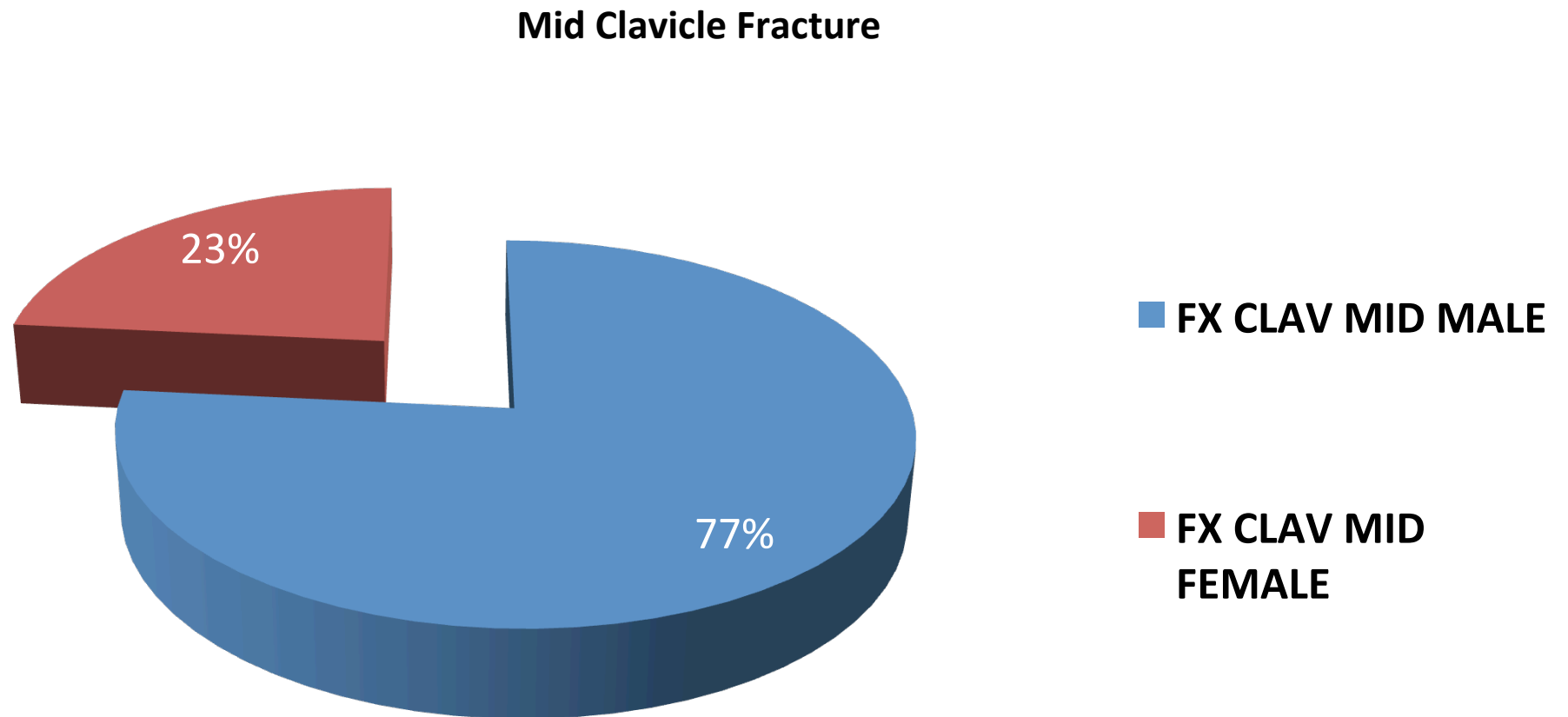
## 211 Total Clavicle Fractures since season 2010/2011

Total Clavicle Fracture



# Types of Injuries

162 Midshaft Clavicle Fractures since season 2010/2011



# Types of Injuries

## 49 Distal Clavicle Fractures since season 2010/2011

Distal Clavicle Fracture

