

Is Rugby Safe, Part 2 - Injury Data

(This is a work in-progress. As research is reviewed, data will be inputted / updated)

While the rules of play are the same for men and women, the pattern and type of injuries commonly seen in female players will undoubtedly be somewhat different due to physical and physiological differences. Key for both sexes is strength developing to withstand the high-impact forces of tackle and other full-contact maneuvers.

Since female participation is the fastest growth segment in Rugby in the USA and world-wide, research on injury patterns is developing rapidly to improve conditioning and other prevention strategies.

For now the following tables apply to male participants.

Incidence of Injury - HS-aged / Amateur (males)

(# of injuries / 1,000 athletic exposures)

| | Rugby | Soccer | Football (American) |
|-------------|----------------|-----------------------|--------------------------|
| Overall | 5.2 /1,000 AE | 7.98 /1,000 AE | |
| Practice | 1.3 /1,000 AE | 0.9–6.0 /1,000 AE | ~ 2.0 /1,000 AE |
| Competition | 15.2 /1,000 AE | 4.7 to 36.9 /1,000 AE | 11.26 to 13.52 /1,000 AE |

Note: Gymnastics has the highest incidence of injury during practices

Girls HS Soccer has the second highest incidence of injury during competitions among nine school sports.

Prevalence of Injury - HS-aged / Amateur (males)

| Type | Rugby | Soccer | Football (American) |
|-------------------------|-------|----------------|---------------------|
| Concussion | 15.8% | | |
| Fracture | 16.0% | 3.05 ± 2.58% | |
| Joint/Ligament (Sprain) | 15.7% | 27.62 ± 7.18% | |
| Muscle/Tendon (Strain) | | 44.56 ± 12.57% | |
| Contusion | | 15.04 ± 4.15% | |
| Lacerations | | 2.4% | |
| System (Heat) | | | |

Severity of Injury, by days absent - HS-aged / Amateur (males)

| | Rugby | Soccer | Football (American) |
|--------------------------|-------|---------------|---------------------|
| Minimal, 1-3 days | | 10.21 ± 7.77% | |
| Mild, 4-7 days_ | | 25.19 ± 7.56% | |
| Moderate, 8-28 days | | 41.38 ± 7.56% | |
| Severe, >28 days | | 22.92 ± 9.0% | |
| Surgery Required | | | ~ 10.0% |
| Unable to Return to Play | | 1.4% | |

Mechanism (Cause) of Injury - HS-aged / Amateur (males)

| | Rugby | Football | Football (American) |
|-------------------|-------------|-----------------|---------------------|
| Acute / Traumatic | | 76.88 ± 9.05% | |
| Chronic / Overuse | | 22.86 ± 8.74 | |
| Contact | | 45.96 ± 16.1 | |
| Being Tackled | 26.0%-30.8% | 24.6% | |
| Tackling | 28.8%-30.0% | 20.5% | |
| Non-Contact | | 49.30% ± 11.56% | |
| New | | | |
| Recurrent | | 16.66 ± 10.25% | |

Common Sites of Injury - HS-aged / Amateur (males)

| | Rugby | Soccer | Football (American) |
|--------------|-------------|--------|---------------------|
| Head & Neck | 47.0% | | |
| Head | 21.7%-36.5% | 28% | |
| Neck | 1.6% | | |
| Upper Limb | 22.0% | | |
| Shoulder | 12.8%-12.0% | 10% | |
| Elbow | 0.5% | | |
| Forearm | 0.5% | | |
| Wrist & Hand | 9.4% | | |
| Trunk | 3.0% | | |

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|--|----------------|------------|--------------|--|
| | Chest (ribs) | 0.5% | | |
| | Thoracic Spine | 1.6% | | |
| | Abdomen | 2.1% | | |
| | Lumbar Spine | 0.5% | | |
| | Lower Limb | 35% | 80.4 ± 7.04% | |
| | Hip & Groin | 6.8% | | |
| | Knee | 2.6% | 14% | |
| | Lower Leg | 1.6% | | |
| | Ankle | 7.8%-13.3% | 11% | |
| | Foot | 5.7% | | |

Sources

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