Alpine Skiing Injury and Illness Status 2025/26

FIS Athlete Health Unit

1. Introduction

When a serious injury or illness keeps an athlete out of competition for a long time, the athlete can apply to FIS for **injury/illness status**. If granted, the status protects the athlete´s FIS and/or WCSL points while they recover.

In the 2025/26 season, FIS granted status to **301 athletes in alpine skiing**. Together, their applications form a detailed picture of the health problems that take alpine skiers off the snow for long periods. This report shares that picture with athletes, coaches, and the health and technical staff who work with them, along with the wider snow sports community.

1.1 What this report is, and what it is not

This report **describes** the 301 granted status episodes: 291 injuries and 10 illnesses. Diagnoses were coded with the OSIICS system (627 codes in total). For 220 on-snow injuries we also know the circumstances of the event, and for 259 injuries the reporter named one or more contributing factors.

It is **not an injury rate** and it does not tell us how risky alpine skiing is. Three limits shape how the numbers should be read:

- **Selection.** Only athletes who applied and met the status criteria are included. The rule targets long absences, so **serious time-loss injuries are over-represented**.
- **No exposure.** Number of runs, days on snow or races each athlete completed were not counted nor included. A higher count in one event or setting may simply reflect more time spent there, not a higher risk.
- **No severity or proven cause.** This edition does not measure days lost, and contributing factors are the reporter's view of what played a role, not proven causes.

Numbers are counted at three levels: **athletes or episodes** (one per application), **injuries**, and **diagnosis codes** (one episode can carry several codes, for example an ACL rupture with a meniscal tear). Each point states which unit it uses.

2. The season in numbers

2.1 What this report is, and what it is not

Counting unit: athlete/episode level. Each of the 301 granted applications counts once.

Sex. Status was granted to **157 women (52.2%) and 144 men (47.8%)**, a close balance between the two groups.

Age. The group is young. The median age was **20 years** (ranging from 18 to 23). Following the FIS age bands, 108 athletes (36.0%) were 18 or younger (U18), 130 (43.3%) were between 19 and 23 (U23), and 62 (20.7%) were 24 or older. 79.3% (238 of 300) of the athletes were 23 or younger, with a slightly higher distribution in women (131 of 157, 83.4%) than in men (107 of 143, 74.8%). Men were more often in the oldest band (36, 25.2% vs 26, 16.6% in women) (Figure 1).

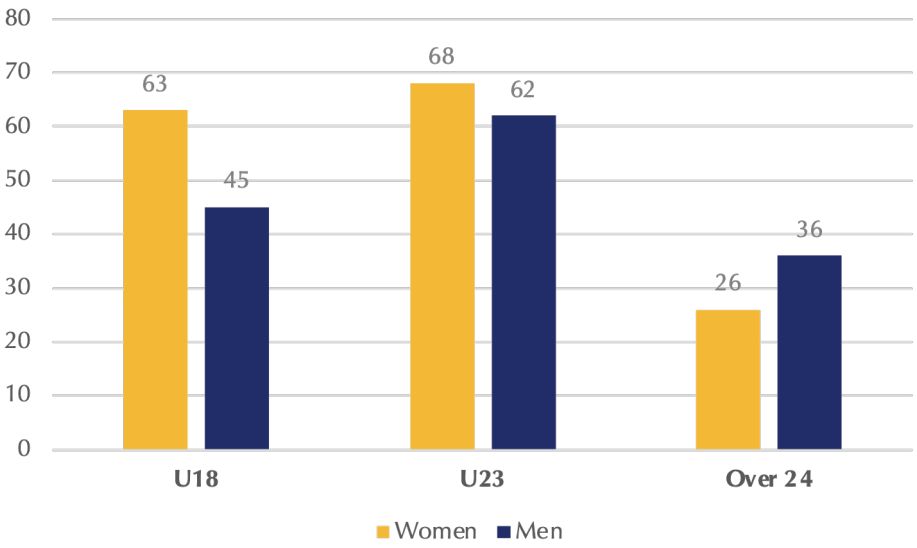


Figure 1 Athletes by age group and sex

Height. Mean height was **173.3 ± 8.5 cm** (range 154 to 200 cm): 167.3 cm for women and 179.7 cm for men.

Weight. Mean body weight was **73.2 ± 11.9 kg** (range 50 to 106 kg): 65.0 kg for women and 82.1 kg for men.

Table 1 Athlete profile by sex

	All (n = 301)	Women (n = 157)	Men (n = 144)
Age, years: median (range)	20 (18–23)	19 (18–22)	20 (18–23.5)
Age, years: range	15–41	15–41	16–35
Height, cm: mean	173.3 ± 8.5	167.3 ± 5.5	179.7 ± 6.2
Weight, kg: mean	73.2 ± 11.9	65.0 ± 6.9	82.1 ± 9.6

2.2 Health events

Counting unit: diagnosis level, with the diagnosis codes counted within each episode.

The 301 episodes carried **627 diagnosis codes**.

More than half of the episodes (**161, 53.5%**) had more than one code, most often a knee injury where several structures were damaged at once.

Episode reasons. 291 episodes (96.7%) were injuries and 10 (3.3%) were illnesses.

3. Injury profile

3.1 Injury context (training vs competition)

Counting unit: injury level. Each of the 291 injuries counts once.

Half of all injuries happened in **on-snow training (146, 50.2%)**, and **113 (38.8%) in competition**. Off-snow training (19, 6.5%) and leisure skiing (13, 4.5%) made up the rest (Figure 2).

Training injuries were almost all in-gates (121 of 146, 82.9%), and competition injuries mostly on the race course itself (99 of 113, 87.6%) rather than in official training runs (8, 7.1%).

Among the 82 competition injuries with a known level, 49 happened at National or FIS races, 14 at World Cup or Championship events, 9 at Continental Cup and 10 at other events.

Injury dates are recorded only for the injuries that happened on snow with an acute onset, 220 in total. Of those, 145 (65.9%) happened in season (December to March), 51 (23.2%) in the pre-season (September to November) and 24 (10.9%) in the off-season (April to August). Almost all pre-season injuries (46 of 51) happened in on-snow training.

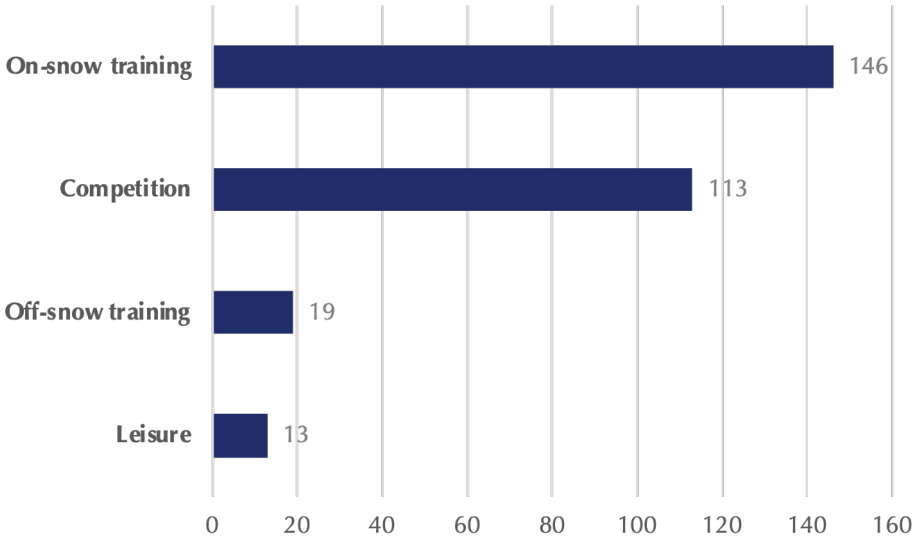


Figure 2 Where injuries happened

Competition injuries.

Table 2 Competition injuries by athletes' competition level

Category	Level not reported	Junior	DH official training runs	National/ FIS	Continental Cup	World Cup / Championship	Total
Downhill	3	1	9	8	1	9	31
Super-G	1	0	0	5	4	2	12
Giant slalom	11	0	0	25	4	1	41
Slalom	4	0	0	11	0	2	17
Event not reported	12	0	0	0	0	0	12
Total	**31**	**1**	**9**	**49**	**9**	**14**	**113**

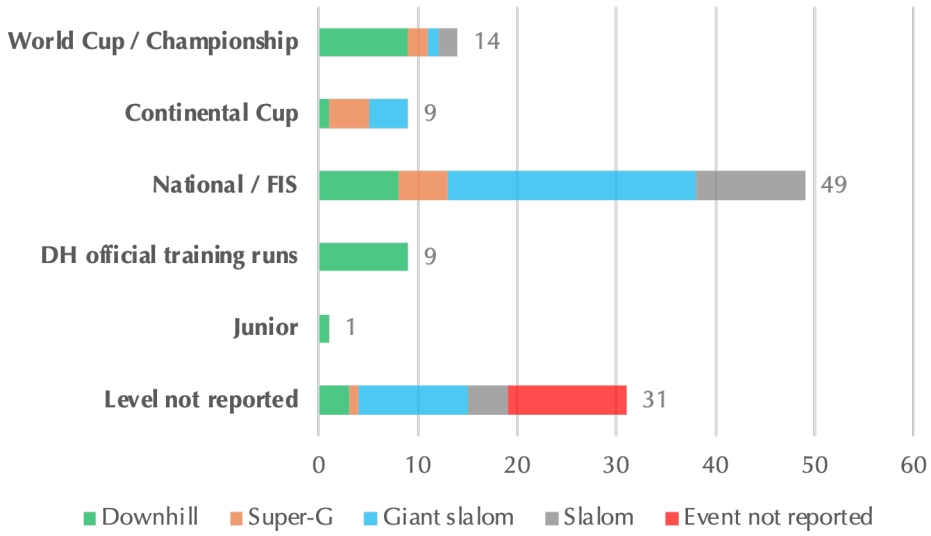


Figure 3 Competition injuries by athletes' competition level

3.2 Injury onset: acute and gradual injuries

Counting units: injury level for the counts, diagnosis level for the body regions in Figure 3.

Of the 276 injuries with a known onset, **242 (87.7%) were acute** (a single identifiable event) and **34 (12.3%) developed gradually**.

The two groups look very different, and this was one of the clearest patterns in the whole dataset (Figure 3). Acute injuries were knee injuries (78.4% of their diagnoses) and mostly ligament damage (58.1%). Gradual injuries were spread across the body: **the knee accounted for 36.4% of diagnoses, the rest of the lower limb for 32.7%, and the spine and trunk for 25.5%**. Their typical tissues were cartilage (36.4%) and tendon or muscle (23.6%).

Gradual injuries deserve attention beyond their small number. They affected men and women almost equally (18 and 16) at a median age of 20 years, and most began in on-snow training (18 of 34), with 9 in competition and 6 in off-snow training.

Counted per injury, the knee was involved in 14 of the 34 cases, the spine and trunk in 11 (32.4%) and the rest of the lower limb in 9. Because they build up over weeks, these problems are easier to miss than a crash.

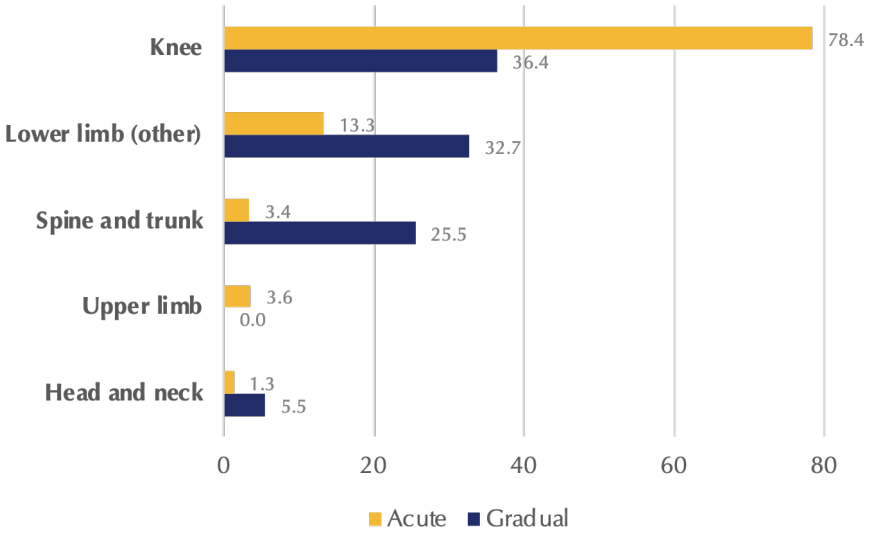


Figure 4 Body regions affected, by onset

3.3 Injury presentation

Counting unit: injury level.

Most injuries were **first-time injuries (239, 82.1%)**, while **52 (17.9%) were recurrent injuries** of a previous problem at the same site.

Recurrence is recorded as a previous problem at the same site. The difference by onset is striking for recurrent injuries: 14.0% of acute injuries were recurrent (34 of 242), compared with **44.1% of recurrency for gradual injuries (15 of 34)**. Almost half of the gradual problems that led to status had been there before, which may suggests that incomplete recovery or an early return to full load might play a role.

Women and men were affected to a similar extent for recurrent injuries (28 of 149 injuries, 18.8%; and 24 of 142, 16.9%). Recurrences made up 12.4% of injuries in athletes aged 18 or younger, 20.0% between 19 and 23, and 23.3% from 24 onwards. Most recurrences happened in on-snow training (28) rather than competition (15), and the technical events accounted for 24 of the 28 with a known event.

Recurrent injuries were concentrated in the knee. Of the 52 recurrent injuries, **39 involved the knee and 28 involved the ACL**, so more than half of all recurrences were ACL injuries. Also, eight of the ten ACL graft ruptures of the season were recorded as recurrences.
The rest of the lower limb accounted for 9 injuries, and the spine and trunk for 5 injuries.

4. Injury patterns

We looked at the same injuries in two ways. An event-based analysis counts each injury event once, which shows how many athletes were affected at a given body site. A diagnosis-based analysis counts every OSIICS code, which keeps the detail of combined injuries (for example an ACL rupture with a meniscal tear in the same knee). Reporting only one of the two would either hide how often several structures are damaged at once, or overstate how many athletes are involved, so we report both.

4.1 Injured body sites

Counting units: the event-based part counts each injury once, the diagnosis-based part counts every OSIICS code.

Event-based analysis.

Counted per injury, the **knee was involved in 207 of 291 injuries (71.1%)**. The rest of the lower limb followed in 61 injuries (21.0%), mainly the lower leg (31, 10.7%) and the ankle (28, 9.6%). The spine and trunk were involved in 27 injuries (9.3%), of which 18 (6.2%) affected the lumbar spine, the upper limb in 12 (4.1%) and the head or face in 8 (2.7%). Head injuries are likely under-represented: concussions that resolve within a few weeks would not usually lead to a status application.
One injury event can affect more than one site, so these figures add up to more than 291.

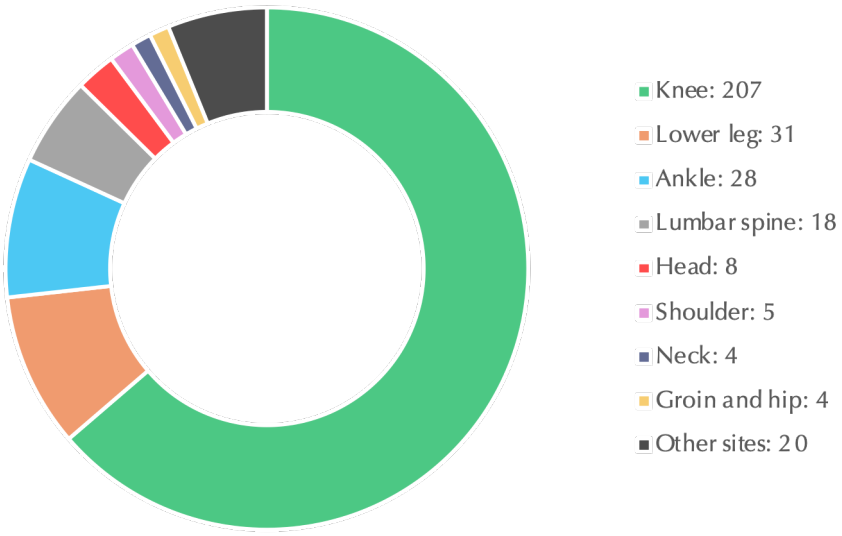


Figure 5 Injured body sites (event-based)

Diagnosis-based analysis.

Of the 610 diagnosis OSIICS codes, the **knee accounted for 452 diagnoses (74.1%)**. The ankle (42, 6.9%) and lower leg (40, 6.6%) followed at a distance, then the lumbar spine (21, 3.4%) and the head (10, 1.6%) (Figure 4).

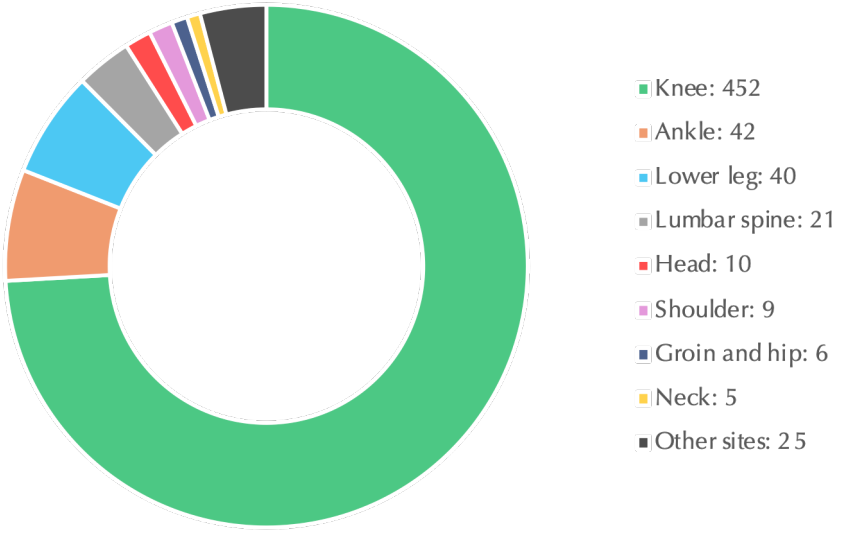


Figure 6 Injured body sites (diagnosis-based)

4.2 Injured types

Counting unit: diagnosis level. Every OSIICS code counts.

Ligament injuries made up more than half of all diagnoses (326, 53.4%), followed by cartilage and meniscus injuries (121, 19.8%) and fractures (89, 14.6%). Tendon and muscle injuries (27, 4.4%), other types (26, 4.3%) and contusions (21, 3.4%) were less common.

The knee drives the overall picture: it holds 306 of the 326 ligament diagnoses and 100 of the 121 cartilage diagnoses. Away from the knee, **fractures were the leading injury type** (70 of 158 diagnoses, 44.3%), mostly in the lower leg and ankle (Figure 5).

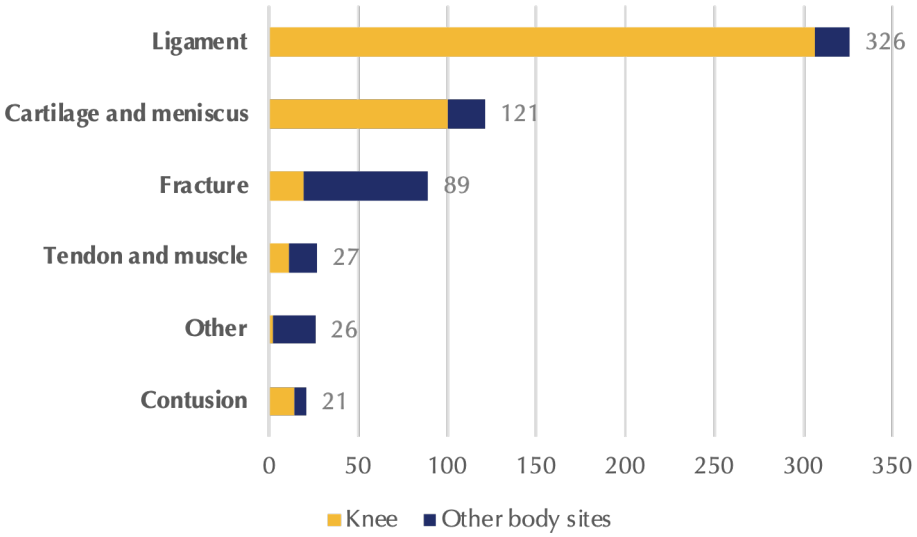


Figure 7 Injury types, knee and rest of the body

4.3 Most frequent medical codes

Counting unit: episode level. Each code counts once per episode.

All ten of the most frequent diagnoses were knee injuries (Figure 7). **ACL rupture (KLA) appeared in 123 episodes (40.9%)**.

ACL injuries were not only frequent, they also came back. Of the 161 episodes involving the ACL, **28 (17.4%) were recorded as a recurrence at the same site**. **Ten episodes carried the code for an ACL graft rupture (KLG)**, meaning the reconstructed ligament failed, and 8 of those 10 were reported as recurrent injuries. All ten were acute events, six in on-snow training and four in competition, in athletes aged 15 to 26.

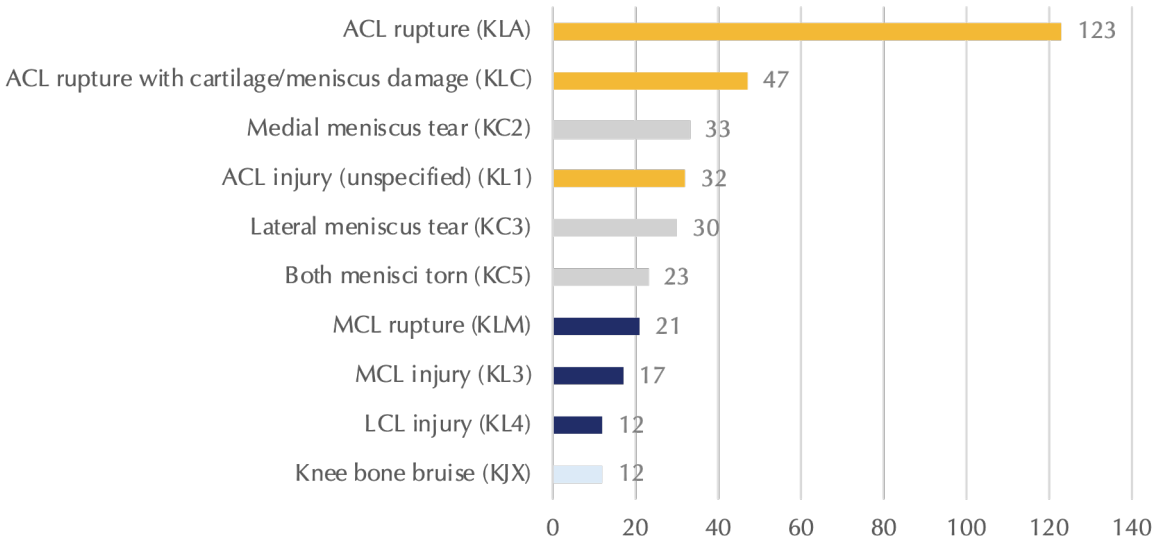


Figure 8 The ten most frequent diagnoses: ACL injuries (yellow), meniscus injuries (grey), other knee ligament injuries (blue)

4.4 Injury mechanisms: on-snow circumstances

Counting unit: injury level, restricted to the 220 acute on-snow injuries.

The on-snow circumstances are only asked for injuries with a single identifiable event, so they cover 220 of the 259 injuries that happened on snow (119 in training, 101 in competition). The remaining 39 are gradual or undetermined in onset, where there is no single event to describe.

For these 220 acute on-snow injuries, the typical scenario is consistent. The athlete was **turning (166, 75.5%)** and **fell (175, 79.5%)**. Among those who reported the timing, most injuries happened **during the fall (117 of 165, 70.9%)**, rather than before it (27, 16.4%) or after it (21, 12.7%). Out of the 154 injuries with a given triggering ski situation, a **slip and catch** of the ski edge was by far the most common **(85, 55.2%)**, followed by getting stuck at a gate (26, 16.9%), getting stuck in a snow pile (19, 12.3%) and straddling a gate (16, 10.4%). Collisions were rare (11, 7.1%) (Figure 6).

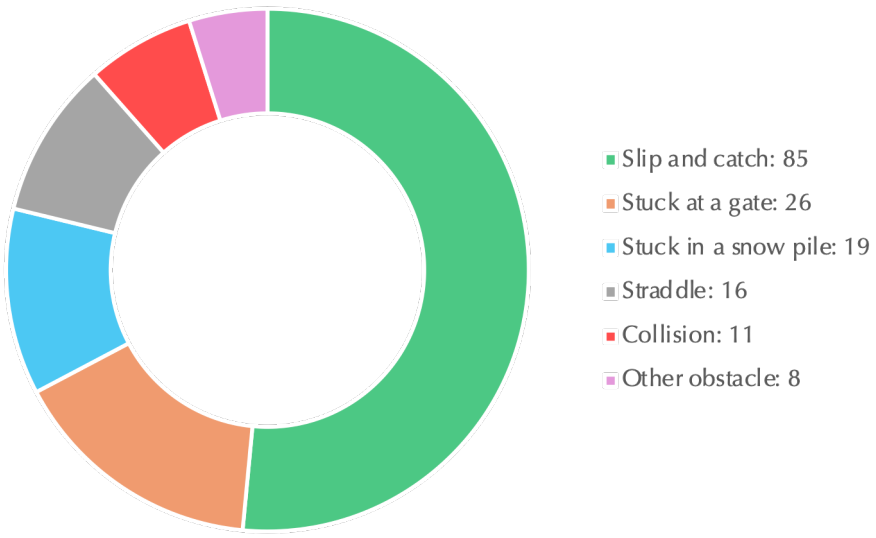


Figure 9 On-snow circumstances

Snow surface was recorded in 216 of the 220 on-snow injuries, and it was mostly **hard or icy** (114, 52.8%), with changing or uneven snow in 63 (29.2%), and soft and even snow in 39 (18.1%).

Where the course section was recorded (202 injuries), injuries were spread evenly along the run, from the first quarter (53, 26.2%) to the last (43, 21.3%).

Jumps (23, 10.5%), the finish area (13, 5.9%) and traverses (12, 5.5%) were the most reported special situations.

Protective equipment use was high: back protectors in 96.2% and cut-resistant underwear in 76.1%; an airbag was worn in 23.7% of the injury cases.

5. Sex and events: what differs, and what does not

Counting unit: injury level, except the spine and trunk comparison, which is at diagnosis level.

5.1 What does not differ.

Women (149 injuries) and men (142) showed a very similar injury profile. The knee was involved in 75.2% of women's and 66.9% of men's injuries, and the ACL in 59.1% and 51.4% respectively. We tested whether combinations of sex, event and context changed the picture, and none did.

5.2 What differs.

Men had more spine and trunk diagnoses (27, 9.7% of men's located diagnoses) than women (8, 2.4%).

Giant slalom accounted for almost half of the injuries reported in the four main events **(105 of 219, 47.9%)**, followed by slalom (48, 21.9%), downhill (42, 19.2%) and super-G (24, 11.0%). Women accounted for most slalom (33 of 48, 68.8%) and giant slalom injuries (59 of 105, 56.2%), while men accounted for most injuries in the speed events (39 of 66 downhill and super-G injuries, 59.1%) (Figure 8).

These discipline figures are purely descriptive: with no exposure data we cannot say that giant slalom is the riskiest discipline, because more injuries there may simply reflect more athletes spending more days training and racing in giant slalom. The same caution applies to the differences between women and men, who do not necessarily follow the same competition programme.

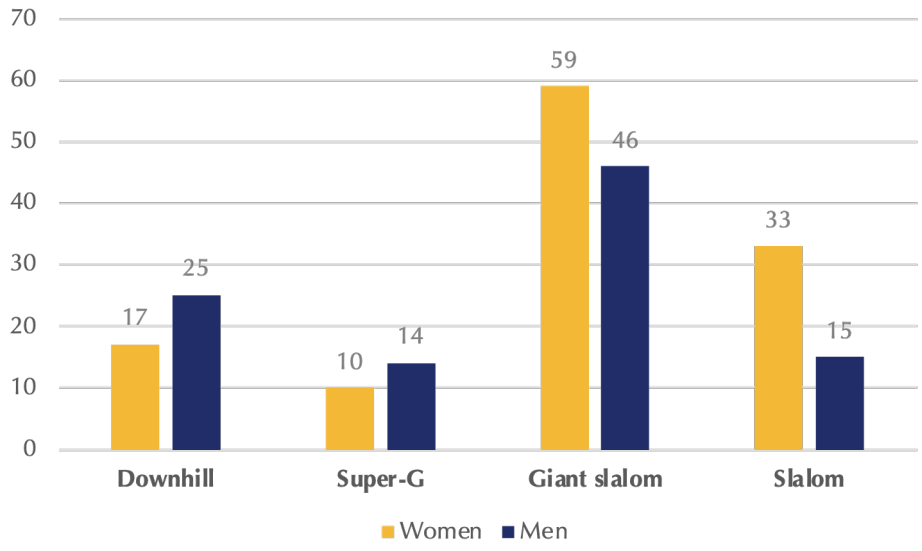


Figure 10 Injuries by event and sex

6. Contributing factors reported

Counting unit: injury level, based on the 259 injuries with contributing factors reported.

For 259 injuries, at least one contributing factor was named. **Athlete-related factors were the most cited (144, 55.6%)**, followed by snow and environment (97, 37.5%), the course (43, 16.6%), equipment (30, 11.6%) and organisation (15, 5.8%) (Figure 9).

The most frequent specific factors were technical and tactical skills (71, 27.4%), snow conditions (68, 26.3%), adaptability to the course (62, 23.9%), changing snow (58, 22.4%), snow preparation (46, 17.8%) and course maintenance (32, 12.4%). Crash behaviour (27, 10.4%), rollers and compressions (26, 10.0%), fatigue (25, 9.7%) and fitness (22, 8.5%) followed.

Most reports (200, 77.2%) named a single domain only, and athlete and snow factors behaved almost as alternatives: when an athlete factor was named, snow was also named in only 17.8% of cases, compared with 61.7% when it was not. Injuries rarely have one cause, so single-domain reports likely understate how factors combine.

Snow preparation or course maintenance was cited in 53 injuries (20.5%), and course factors were cited twice as often in the speed events (30.3%) as in the technical events (13.7%).

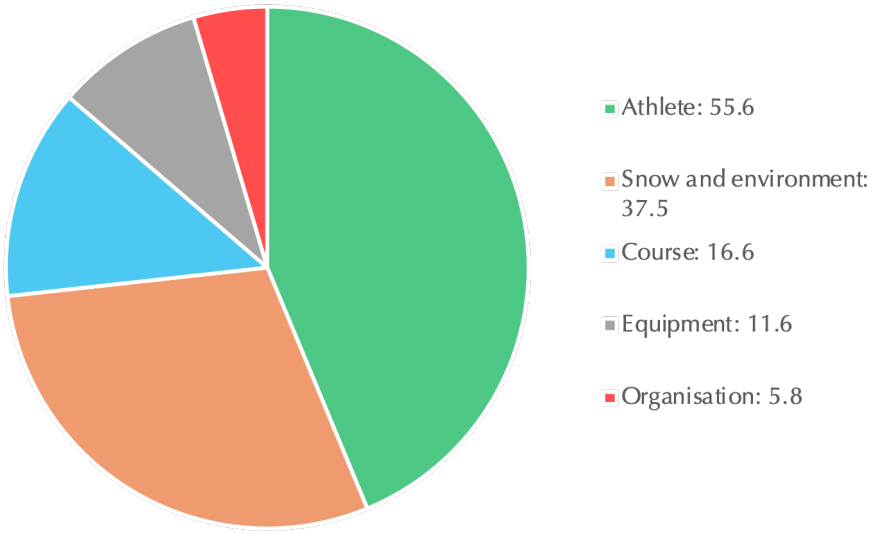


Figure 11 Contributing factors reported by domain

7. Illnesses in numbers

Counting unit: episode level.

Ten episodes were illnesses: **8 in women and 2 in men**, with a median age of 19 years (range 17 to 28). The low share of illness is expected: the status rule captures long absences, and most illnesses resolve in days or weeks.

By organ system, 4 were musculoskeletal conditions, **3 were psychological or psychiatric**, 2 involved several systems or were not specified, and 1 was cardiovascular.

8. Practical implications

Make knee protection a year-round priority.

The knee was involved in seven of ten injuries and the ACL in more than half of all episodes.

Treat gate training as a high-risk setting.

Half of the injuries happened in training, mostly in gates. Training courses deserve the same care as race courses. *See: FIS Code of Conduct for Training and Safety.*

Train balance recovery and how to fall.

The typical injury happened while turning, during a fall, after the ski edge slipped and caught, often on hard or icy snow.

Take gradual problems and recurrences seriously.

Almost half of the gradual injuries were recurrences, and a quarter involved the back region. Completing rehabilitation, using clear return-to-sport criteria and monitoring training load can help stop small problems from becoming season-ending ones.

See: FIS Return-to-Performance page.

See: FIS Prevention, Testing, Monitoring & Training page.

Focus on the development years.

Most athletes were 20 or younger and most competition injuries happened at National and FIS level. Prevention programmes and education should reach youth and development teams, their coaches and their support staff.

Help us improve the data.

Some answers suggest the reporting form can be clearer. We will review the wording of these items.