



Analysis of Greyhound Racing Injuries

1 July 2020 – 30 September 2020

Foreword

Each quarter the NSW Greyhound Welfare & Integrity Commission (the Commission) publishes a report providing data in relation to injuries that have been sustained by greyhounds while racing in NSW. The publication of such data has occurred in NSW since 2016 and is designed to provide transparent, accurate and timely reporting of racing related injuries.

This report contains both quarterly analysis and trend line analysis of racing injury related information and provides an important evidence base to assess current and future strategies to minimise the incidence and severity of greyhound racing related injuries.

Changes to the report's structure and content are sometimes made to enhance the utility of these reports.

This report relates to the first quarter of the 2020-21 financial year, or third quarter of 2020 on a calendar year basis.

Key points

During the quarter, the Commission supervised 287 greyhound race meetings consisting of 2,973 races and 21,607 greyhound starts. A total of 3,862 individual greyhounds started in races over this period, with an average of 5.6 starts per greyhound. The starts per greyhound rate is on an increasing trend, which may negatively impact the injury rate. Programming of races should consider what is optimal for the existing racing greyhound population.

The number of greyhounds found to have sustained an injury this quarter was 575 or 2.6% of all greyhound starters. This represents total injury rate per 1,000 starts of 26.6. This is the lowest total injury rate reported since Q2 2018, as depicted in Table 3.

Some 438 (76%) of all injuries were classified as minor or medium, requiring between 1 to 21 days stand down from racing. Serious injuries (Major II) accounted for 7% of all injuries this quarter. Of the 42 serious injuries reported this quarter, the majority (83%) will fully recover following further veterinary treatment and seven greyhounds were humanely euthanased by private veterinarians off-track following complications associated with their injuries or due to the poor prognosis for full recovery.

The number of greyhounds that suffered a catastrophic injury resulting in euthanasia or death was 11, representing a rate of 0.5 per 1,000 starts, which is the second consecutive quarter with the lowest catastrophic injury rate recorded in NSW. This decrease in Catastrophic injuries is as a result of enhanced treatment by OTVs and consistent application of the Guidelines for the treatment of serious injuries and euthanasia as well as the Race Injury Treatment Scheme, administered by GRNSW, which provides funds for participants to treat and rehabilitate seriously injured greyhounds.

Data sources and Injury classification

This report is prepared by the Commission's Chief Veterinary Officer and details greyhound injuries and fatalities that occurred at race meetings in New South Wales for the respective reporting period.

The information is compiled from data recorded by the Commission's On-Track Veterinarians (OTVs) using the Greyhound Examination Database (GED) managed by the Faculty of Engineering and Information Technology at the University of Technology Sydney (UTS).

The data captured by OTVs and input into the GED includes a description of the greyhound; the track; the race distance; the box and race number; the anatomical location and nature of the injury; the incapacitation time applied; the apparent location on the track where the incident that resulted in the injury occurred; and all treatment information. This information also contributes to ongoing research being conducted by UTS into greyhound racing track design, safety and injury prevention.

Data on the number of race meetings and race starts is drawn from the Commission’s business systems (including OzChase and OneGov).

All greyhounds that present at a race meeting are subject to a pre-race veterinary examination by the OTV.

In a post-race context, the OTV undertakes examination of some greyhounds for a variety of reasons including:

- at the request of a steward due to suboptimal or inexplicable performance
- a racing incident (for example, a race collision or race fall or a marring incident)
- where a greyhound fails to finish a race
- at a trainer’s request; and/or
- initiated by the OTV.

All greyhounds injured at the racetrack receive immediate veterinary treatment from an OTV. Trainers may be directed by the OTV to seek follow-up treatment for a greyhound from a veterinarian in private practice.

Injury classification methodology

Injuries are classified according to the number of days ‘incapacitation’ or stand-down from racing required to recover from the injury diagnosed at the time of the examination by the OTV. The injury classification now used by the Commission’s OTVs is detailed in Table 1.

Table 1: Injury classification and examples of injuries

Injury category	Incapacitation period (days)	Example of injury
Minor*	1-10	Minor cuts, abrasions, pad injuries, Grade 1 muscle injuries requiring treatment.
Medium	14-21	Moderate cuts and pad/toe injuries, joint sprains, ligament or tendon injuries, Grade 2 muscle injuries.
Major I	28-42	Fractured toes, severe split pads, dislocated joints, simple fractures, Grade 3 muscle injuries.
Major II	43-90	Long bone fractures; severe spinal, pelvic or skull injuries; major fracture dislocations, Achilles tendon ruptures.
Catastrophic		Euthanased or sudden death.

*Formerly named Minor II

Counting methodology

Where an individual greyhound sustains injuries in more than one injury category, only the highest category is used in reporting.

Injury rates are reported both as injuries per 100 greyhounds raced (where each greyhound will be counted only once irrespective of how many times it raced), and injuries per 1,000 starts (where a greyhound is counted every time it races within the quarter).

Causative factor analysis

There are many causes of injuries in racing greyhounds and the relative importance and interactions of causative factors vary. Causative factors can be divided into:

1. Greyhound factors: genetics, nutrition, physical growth and development, fitness, race preparation and previous injury history
2. Track factors: design and surface characteristics
3. Race factors: race distance, racing incidents and number of greyhounds in a race.

The causal factors for major and catastrophic race injuries are examined by the Commission's Race Injury Review Panel. A separate report is produced in relation to the findings of the Race Injury Review Panel and is published at www.qwic.nsw.gov.au.

Race injury prevention strategies

The Commission is committed to reducing the incidence and severity of greyhound injuries and eliminating the unnecessary euthanasia of injured greyhounds.

Various policies, programs and other measures are in place or will be progressively introduced to deliver this outcome including:

- the analyses of all catastrophic and Major II injuries in racing greyhounds by the Race Injury Review Panel;
- obtaining advice from the Greyhound Industry Animal Welfare Committee into greyhound injuries and their causes;
- agreement through the greyhound industry Measurement and Reporting Working Group to compile a comprehensive data set, in conjunction with GRNSW, for multi-factorial analysis of injury causes and correlations; and
- working with Greyhound Racing NSW on track safety reform projects in conjunction with safety experts including from the University of Technology Sydney (UTS) in order to improve understanding of the track-related aspects of racing injuries.

The Commission will continue to advocate for priority attention to be given to those tracks that are above the average in relation to rates of Major II or Catastrophic injuries where track and race factors are thought to be the most significant factors contributing to serious injuries.

Injuries this quarter

Injuries reported during this quarter are shown in Table 2.

Table 2: Injury numbers and rates 1 July – 30 September 2020 (Q3 2020)

Injury category	Incapacitation period (days)	Number of greyhounds injured	Percentage of greyhounds injured per injury category	Cumulative total per injury category	Injuries per 100 greyhounds raced	Injuries per 1,000 starts
Minor*	1-10	242	42.0%	42.0%	6.3%	11.2
Medium	14-21	196	34.0%	76.0%	5.1%	9.1
Major I	28-42	84	15.0%	91.0%	2.3%	3.9
Major II	43-90	42	7.0%	98.0%	1.1%	1.9
Catastrophic	Euthanased/died	11	2.0%	100%	0.3%	0.5
Total		575	100%	100%	18.1%	26.6

*Formerly named Minor II

Injury trends over five quarters

The total injury rate in this quarter (26.6 per 1,000 starts) represents a reduction in the total injury rate reported in Q3 2019 (30.9 per 1000 starts). This is the lowest total injury rate reported since Q3 2018.

The Catastrophic injury rate has maintained its lowest ever rate at 0.5 per 1000 starts for this quarter.

The serious injury (Major II) rate has maintained at 1.9 per 1000 starts this quarter and has been consistent for the past four quarters. Strategies to reduce the number of serious injuries sustained on tracks in NSW is an on-going focus of both the Commission programs and policies and GRNSW track maintenance teams.

Table 3: Greyhound injury numbers and rates over 15 months

Injury category	Quarter 3 2019			Quarter 4 2019			Quarter 1 2020			Quarter 2 2020			Quarter 3 2020		
	Number	Per 100 raced	Per 1000 starts	Number	Per 100 raced	Per 1000 starts	Number	Per 100 raced	Per 1000 starts	Number	Per 100 raced	Per 1000 starts	Number	Per 100 raced	Per 1000 starts
Minor*	343	9.1%	16.9	320	8.0%	15.7	242	6.6%	13.0	271	7.3%	13.5	242	6.3%	11.2
Medium	161	4.3%	7.9	233	5.9%	11.4	183	5.0%	9.8	167	4.5%	8.3	196	5.1%	9.1
Major I	76	2.0%	3.7	84	2.1%	4.1	73	2.0%	3.9	86	2.3%	4.3	84	2.3%	3.9
Major II	35	0.9%	1.7	45	1.1%	2.2	37	1.0%	2.0	39	1.1%	1.9	42	1.1%	1.9
Catastrophic	12	0.3%	0.6	15	0.4%	0.7	15	0.4%	0.8	10	0.3%	0.5	11	0.3%	0.5
Total	627	16.6%	30.9	697	17.5%	34.2	550	15.0%	29.5	573	15.5%	28.4	575	18.1%	26.6

*Formerly named Minor II

Longer term trends

As shown in Table 3, the third quarter of 2020 demonstrates a decline from the prior quarters in the total injury rate (26.6 per 1000 starts). Most of the decrease in injuries occurred in the Minor category, which incur 1-10 days off racing.

Medium injuries this quarter (9.1 per 1000 starts) have increased slightly. It is unknown whether this increase is statistically significant.

Major I and Major II injuries have remained stable over the last two quarters, with both slightly increased from the same Q3 in 2019.

Catastrophic injuries have remained consistently low over the last five quarters and remained stable between 0.4 to 0.6 per 1000 starts, except for a slight increase during Q4 2019 and Q1 2020 (0.7 and 0.8 per 1000 starts respectively) which represent the hottest months of the year. It is thought that the influence of heat and low rainfall may have contributed by affecting training, trialing and racing surfaces.

Trends in injury rates since the start of 2016 are shown in Figures 1 and 2.

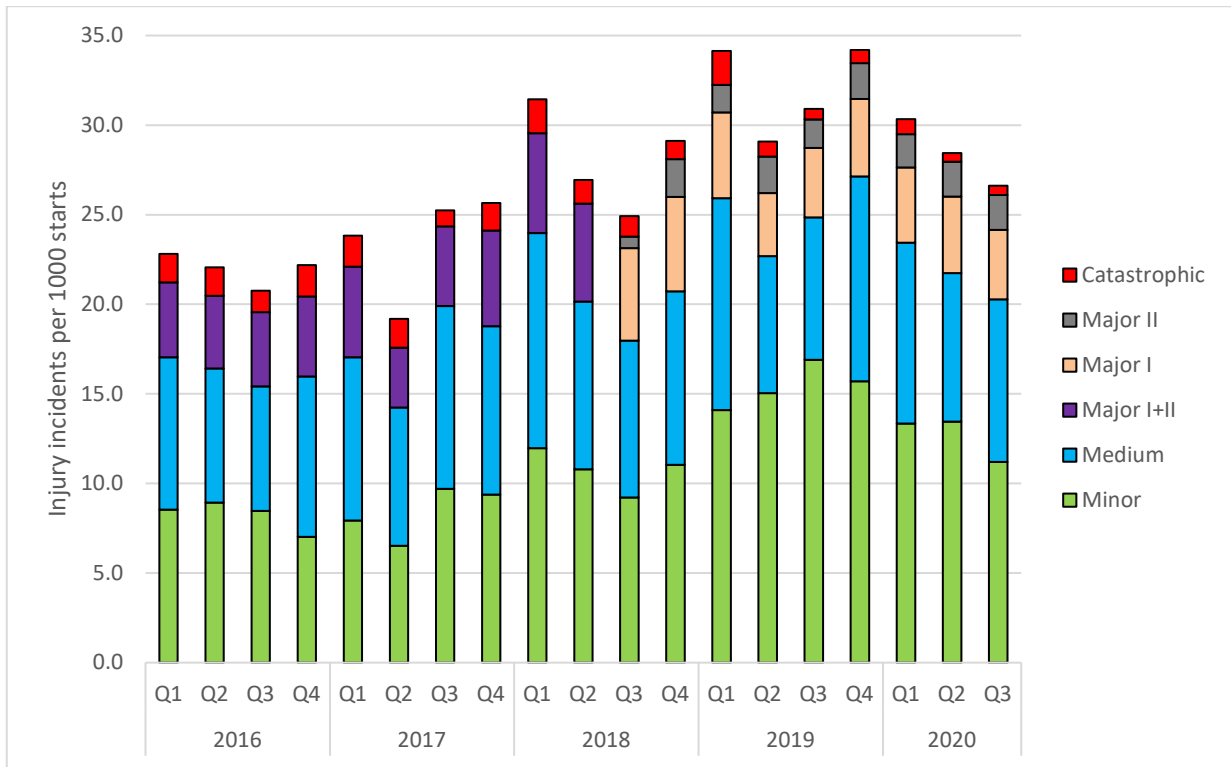


Figure 1: Injury trends by year quarters since 2016

*Note these figures may vary from previously reported figures to account for the exclusion of the Minor I category. Data before Q3 2018 is from GRNSW reports available at <http://www.grnsw.com.au/welfare/veterinary/injury-report>. Data reported since the Commission commenced on 1 July 2018 contains injuries at both non-TAB and TAB races.

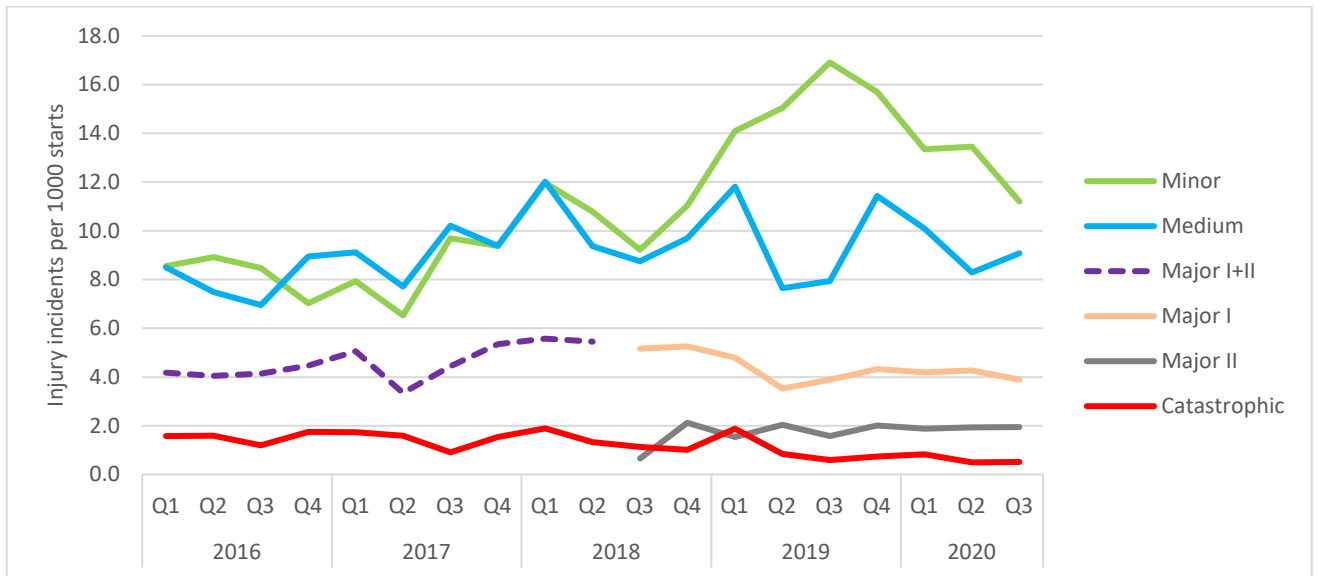


Figure 2: Trends in injury category by year quarters since 2016

*Note these figures may vary from previously reported figures to account for the exclusion of the Minor I category. Data before Q3 2018 is from GRNSW reports available at <http://www.grnsw.com.au/welfare/veterinary/injury-report>. Data reported since the Commission commenced on 1 July 2018 contains injuries at both non-TAB and TAB races.

Injuries by severity

The injury distribution for 2020 is shown in figure 3. Minor injuries are the largest number reported and Catastrophic injuries the smallest proportion of injuries reported.

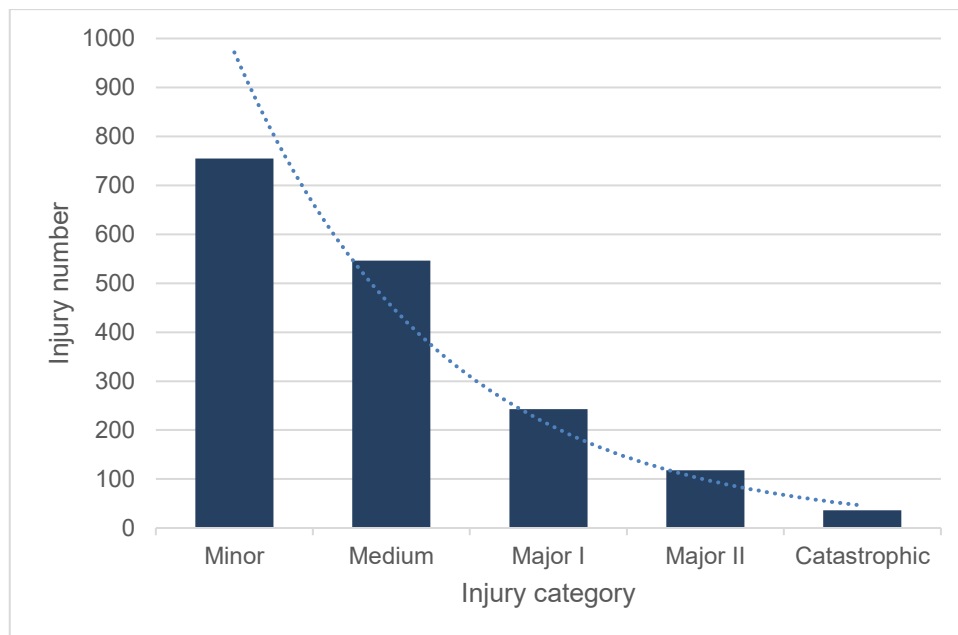


Figure 3: Distribution of injuries by category Q1-Q3 2020

The average proportion of recoverable injuries and serious injuries during each calendar year is summarised below (Table 4).

Table 4: Comparison of the proportion of recoverable injuries versus serious injuries per year since 2018.

Injury Type	2018	2019	Q1-Q3 2020
Likely Recoverable Injuries (Minor* + Medium + Major I)	92.8%	91.0%	91.0%
Serious and Catastrophic Injuries (Major II + Catastrophic)	7.2%	9.0%	9.0%

*Note these figures may vary from previously reported figures to account for the exclusion of the Minor I category.

The Major II and Catastrophic injuries occurring during this period were reviewed by the Race Injury Review Panel as it continued its work analysing contributing factors to Major II and Catastrophic race injuries.

The Panel continues to study all the contributing factors of Major II and Catastrophic injuries and, over time, the data collected will assist in informing prevention strategies and regulatory steps to minimise the incidence of racing injuries.

Fatalities

A fatality is defined as a greyhound which is euthanased at a race meeting as a result of an injury sustained during the meeting, or any sudden death occurring during the race meeting. These fatalities are classified as Catastrophic injuries.

Of the 11 greyhound fatalities during this quarter, 10 were euthanased as a result of catastrophic injuries sustained during racing. One greyhound died suddenly following a fall. It was found to have suffered a fatal neck fracture.

Seven greyhounds that were categorised by OTVs as having sustained a Major II injury (>42 days incapacitation) were subsequently reported to the Commission as having been euthanased by a private veterinarian following further diagnostic tests and treatment. These fatalities are not included in the reported statistics for Catastrophic injuries in this report.

The race injury treatment scheme, which was introduced at the end of March 2019, provides financial support for the off-track diagnosis and treatment of serious injuries which occur during racing, thereby eliminating unnecessary euthanasia of injured greyhounds due to the financial commitments associated with surgery and on-going treatment of greyhounds with serious injuries.

Four greyhounds were reported as having been euthanased as a result of injuries sustained during unofficial club trials. These fatalities are not included in the reported statistics for Catastrophic injuries reported in this report.