



# **Analysis of Greyhound Racing Injuries**

**1 April 2020 – 30 June 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 final quarter of the 2019-20 financial year, or second quarter of 2020 on a calendar year basis.

## Key points

During the quarter, the Commission supervised 261 greyhound race meetings consisting of 2,705 races and 20,142 greyhound starts. A total of 3,688 individual greyhounds started in races over this period, with an average of 5.5 starts per greyhound.

The number of greyhounds found to have sustained an injury was 573, amounting to 2.8% of all greyhound starters or a total injury rate per 1,000 starts of 28.4. This is the lowest total injury rate reported since Q3 2018.

Most injuries, some 438 or 76.4%, were classified as minor or medium, requiring incapacitation periods of 1 to 21 days.

The number of greyhounds that suffered a catastrophic injury resulting in euthanasia or death was 10, representing a rate per 1,000 starts of 0.5, which is the lowest catastrophic injury rate recorded in NSW.

## 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.

This quarterly report is the second in the series that reflects the change to the reporting of minor injuries, by excluding injuries, that, notwithstanding examination at the track by an OTV, were so minor that no time off from racing was required. These incidents were previously reported as Minor I, with injuries requiring time off between 1 to 10 days classified as Minor II. From here on only injuries requiring an incapacitation period of at least one day will be reported, with the classification of Minor injuries defined as any injury requiring an incapacitation period of between 1-10 days.

**Table 1: Injury classification and examples of injuries**

<b>Injury category</b>	<b>Incapacitation period (days)</b>	<b>Example of injury</b>
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.gwic.nsw.gov.au](http://www.gwic.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.

This reporting period also reflects changes to the operation of the racing industry as a result of the COVID-19 pandemic. For the period 23 March 2020 - 1 June 2020 changes to racing occurred, including the cancellation of all non-TAB race meetings and the regionalisation of greyhound racing in NSW, with only ten racetracks operating in restricted zones and trainers

only allowed to nominate greyhounds to race within their designated zones. From 1 June 2020, TAB racing commenced as normal, with non-TAB racing recommencing at one venue only Broken Hill, in June. Despite the COVID-19 restrictions being in place and the use of a limited number of racing venues, no significant reduction in racing occurred, with 2705 races conducted this quarter compared to 2881 in the same quarter in the prior year.

**Table 2: Injury numbers and rates 1 April – 30 June 2020 (Q2 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
<b>Minor*</b>	1-10	271	47.3%	47.3%	7.3%	13.5
<b>Medium</b>	14-21	167	29.1%	76.4%	4.5%	8.3
<b>Major I</b>	28-42	86	15.0%	91.4%	2.3%	4.3
<b>Major II</b>	43-90	39	6.8%	98.3%	1.1%	1.9
<b>Catastrophic</b>	Euthanased/died	10	1.7%	100%	0.3%	0.5
<b>Total</b>		573	100%	100%	15.5%	28.4

\*Formerly named Minor II

## Injury trends over five quarters

The total injury rate in this quarter (28.4 per 1,000 starts) represents a reduction in the total injury rate reported in Q2 2019 (29.1 per 1000 starts).

The Catastrophic injury rate has decreased further from 0.8 per 1000 starts in Q2 2019 to 0.5 for this quarter, representing the lowest Catastrophic injury rate reported in NSW since reporting began in 2016. This reduction in the rate of Catastrophic injuries over the past four quarters is believed to be due to a combination of increased awareness by trainers and owners of treatment options for serious injuries available to them; the diligent application by all OTVs of the Commission's veterinary guidelines for the treatment of serious injuries at tracks; increased focus on ideal track surface preparation; and increasing awareness of the Race Injury Treatment Scheme<sup>1</sup>, implemented by GRNSW in March 2019.

<sup>1</sup> The race injury treatment scheme, administered by GRNSW, provides financial support for the off-track diagnosis and treatment of serious injuries which occur during racing. The scheme is intended to eliminate the euthanasia of injured greyhounds in circumstances where owners may not have the financial capacity to treat serious injuries.

**Table 3: Greyhound injury numbers and rates over 15 months**

Injury category	Quarter 2 2019			Quarter 3 2019			Quarter 4 2019			Quarter 1 2020			Quarter 2 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*	303	8.4%	15.0	343	9.1%	16.9	320	8.0%	15.7	242	6.6%	13.0	<b>271</b>	<b>7.3%</b>	<b>13.5</b>
Medium	154	4.3%	7.6	161	4.3%	7.9	233	5.9%	11.4	183	5.0%	9.8	<b>167</b>	<b>4.5%</b>	<b>8.3</b>
Major I	71	2.0%	3.5	76	2.0%	3.7	84	2.1%	4.1	73	2.0%	3.9	<b>86</b>	<b>2.3%</b>	<b>4.3</b>
Major II	41	1.1%	2.0	35	0.9%	1.7	45	1.1%	2.2	37	1.0%	2.0	<b>39</b>	<b>1.1%</b>	<b>1.9</b>
Catastrophic	17	0.5%	0.8	12	0.3%	0.6	15	0.4%	0.7	15	0.4%	0.8	<b>10</b>	<b>0.3%</b>	<b>0.5</b>
<b>Total</b>	<b>586</b>	<b>16.2%</b>	<b>29.1</b>	<b>627</b>	<b>16.6%</b>	<b>30.9</b>	<b>697</b>	<b>17.5%</b>	<b>34.2</b>	<b>550</b>	<b>15.0%</b>	<b>29.5</b>	<b>573</b>	<b>15.5%</b>	<b>28.4</b>

\*Formerly named Minor II

## Longer term trends

As a result of changes to the classification of minor injuries introduced in Quarter 1 2020 and to enable comparative analysis of previously reported long term trends, all data for the previous fifteen months has been recalibrated to exclude Minor I reported injuries. This recalibration has resulted in changes to the overall totals of injuries previously reported and the relative proportion of each injury classification to the total of all reported injuries.

As shown in Table 3, the second quarter of 2020 demonstrates a decline from the prior quarters in the overall injury rate. Most of the decrease in injuries occurred in the Medium category, which incur 14- 21 days off racing.

Minor injuries this quarter (13.5 per 1000 starts) have decreased from 15.0 per 1,000 starts in Q2 of 2019.

Medium injuries have initially increased from 7.6 per 1000 starts in Q2 of 2019 to 8.2 per 1,000 starts this quarter. These fluctuations in Medium injuries, mostly muscle injuries, may be due to the average number of starts per greyhound fluctuating due to COVID-19 restrictions affecting race programming, with many venues seeing more racing than usual. It is unknown whether these fluctuations are statistically significant.

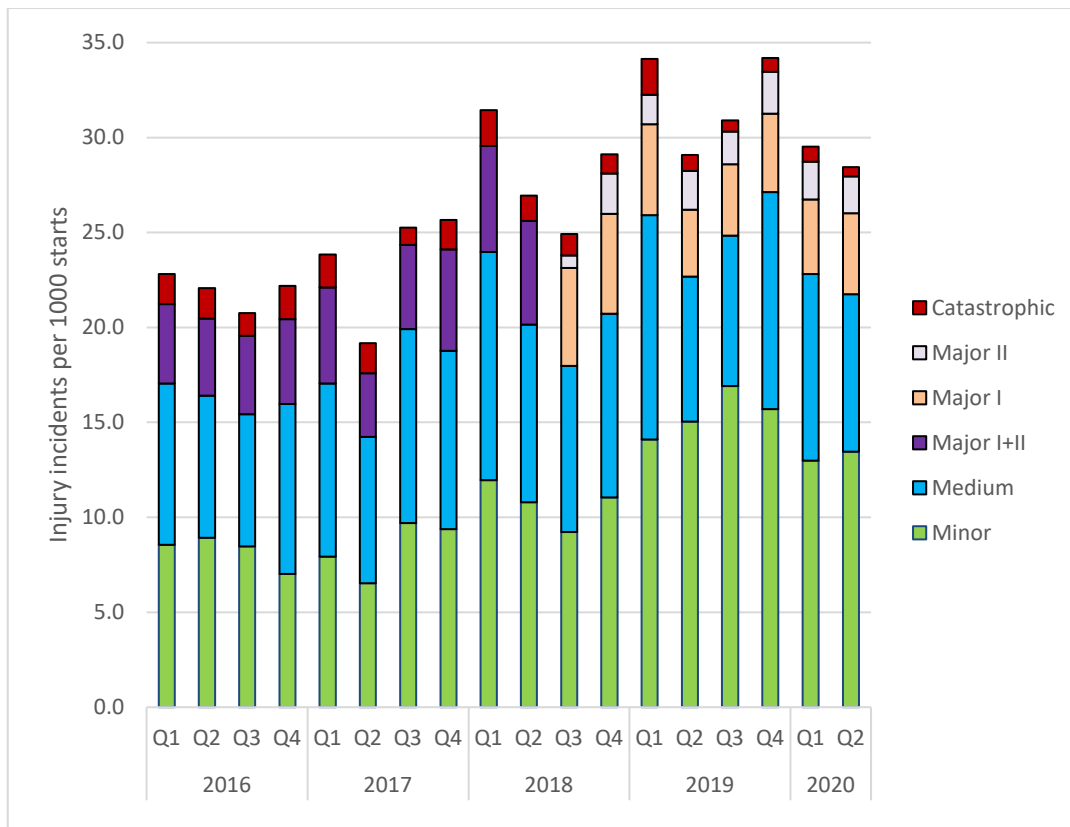
Major I injuries have increased slightly, reported as 3.5 per 1,000 starts in Q2 of 2019 and increasing slightly to 4.2 per 1,000 starts during Q2 of 2020. Major II injuries, decreased from 2.0 per 1000 starts in Q2 2019 to 1.9 per 1000 starts this quarter. The significant decrease in Catastrophic injuries has seen a concomitant rise in Major II injuries and so the overall number of serious injuries has declined this quarter.

Catastrophic injuries have decreased from 1.9 per 1,000 starts in Q1 of 2018; to 0.8 per 1,000 starts in Q2 of 2019; and to the lowest rate ever recorded, 0.5 per 1000 starts in Q2 2020. This is consistent with the previous two quarters (Q1 of 2020 and Q4 of 2019), which were the lowest catastrophic injury rates since reporting began in 2016.

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

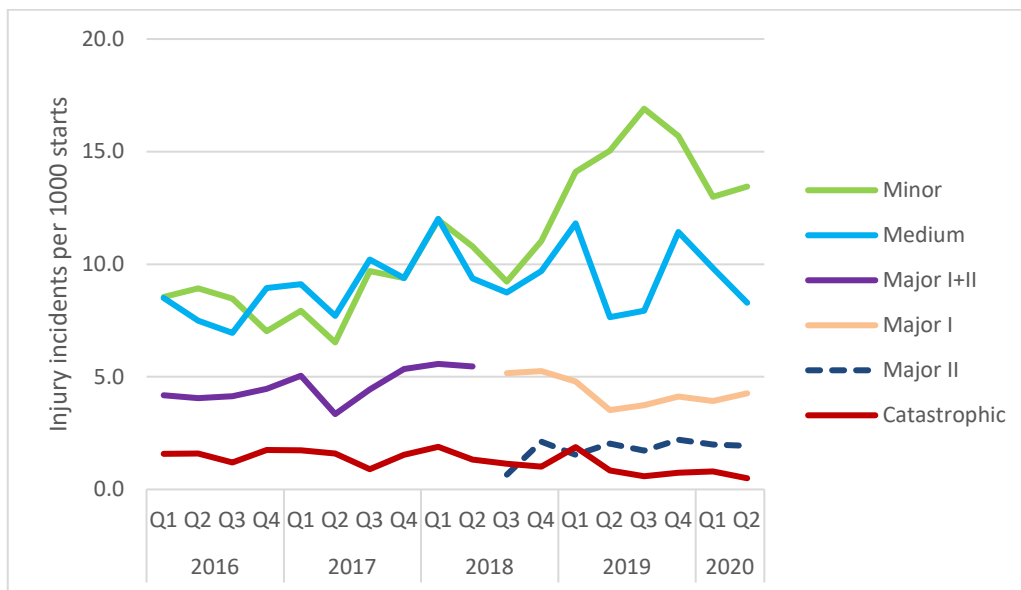
\*Note these figures may vary from previously reported figures to account for the exclusion of the Minor I category.



\*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.



## Injuries by severity

The largest proportion of injuries in this quarter were Minor (47.3%), followed by Medium (29.1%) and Major I (15.0%). Likely recoverable injuries (Minor, Medium, Major I) made up 91.4% of all greyhound injuries during this quarter. Injuries which were serious in nature, career ending or required surgery and further treatment and rehabilitation (Major II) made up 6.8% of all reported injuries this quarter and when combined with Catastrophic injuries, made up 8.6% of all injuries. Injuries which required an incapacitation of 21 days or less (Minor + Medium) made up 76.4% of this quarter's injuries. 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 +Q2 2020
Likely Recoverable Injuries (Minor* + Medium + Major I)	92.8%	91.0%	91.3%
Serious Injuries (Major II + Catastrophic)	7.2%	9.0%	8.7%

\*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. Seven injuries classed as Major II injuries by the OTV's were considered by the RIRP to be reclassified as Major I injuries, after further diagnostic tests revealed they were less serious in nature.

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 10 greyhound fatalities during this quarter, all were euthanased as a result of catastrophic injuries sustained during racing. There were no instances of sudden death occurring at a racecourse after the completion of a race.

Due to COVID-19 restrictions, there was no non-TAB racing between 23 March 2020 and 13 June 2020, when non-TAB racing recommenced at Broken Hill. Further, TAB racing was restricted to five regions, with an average of three tracks being accessible to trainers within each region. As a result of the regions, there was a slight increase in the average starts per greyhound during these restrictions (from 5.07 to 5.5 starts per greyhound) but overall, the effect of COVID-19 restrictions on the total injury rate and Catastrophic injury rate appears to be positive, despite there being little change to the number of programmed races. An effect may be due to improved consistency in maintaining a small number of venues, where greyhounds raced more frequently. The Catastrophic injury rate of 0.5 per 1,000 race starts this quarter is the lowest reported incidence since reporting began in 2016.

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 Table 2.

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 Table 2.