



Animal Aid - Grand National Briefing Sheet Summary

The Grand National course is notorious for the consistency with which it kills horses. Despite numerous changes to the course and conditions of the race over the past 50 years, at least 36 horses are known to have lost their lives in the main Grand National, and many others have been injured.

During this time there have been years when no horses have died in the Grand National itself, but celebratory noises from race advocates, claiming the problems are solved, have always proved premature, since horses have died on the course in other races. Today, the Grand National is still, on average, over five times more lethal than other steeplechases.¹

There were no deaths in the main race itself between 2013 and 2016, but eight horses have died on the same course while racing in other events. The Grand National course remains what it has always been – an appallingly hazardous test for horses, and one that continues to produce miserably spectacular falls and collisions. When a race passes without a fatality, it is due to good fortune rather than good planning.

The two other races run on the National course during the April meeting are the Topham and Fox Hunters' chases. Two more are staged on the same ground in December – the Grand Sefton and the Becher.

The media and public outrage at the deaths of two horses, Ornais and Dooneys Gate, in 2011, put a spotlight on the race's safety record. It was again highlighted in 2012 when the favourite, Synchronised, and outsider, According To Pete, were both killed. Historically, there has been a lack of transparency and access to welfare information from the British Horseracing Authority (BHA) and its predecessor bodies. Fatalities tend to be characterised as 'accidents', rather than what they actually are: routine and predictable.

Background

The Grand National has been staged under various names almost every year since its inception in 1839. It is held at Aintree in Liverpool and is run over a stamina-sapping distance of four-and-a-quarter miles on a roughly triangular-shaped course. The course comprises 16 fences, 14 of which are jumped twice. This means that the set number of 40 competing horses are confronted by a total of 30 fences.

¹According to the BHA, '*Jump racing accounts for just over 4 fatalities of every thousand runners.*' This equates to 0.4%. (<http://www.britishhorseracing.com/resources/equine-science-and-welfare/injuries-fatalities.asp>). For the last 998 runners (from 1990 to 2016) in the Grand National, there were 21 deaths (which equates to 2.1%). Therefore, the Grand National is over five times more deadly than other jumps races.

Some Important Problems

- Too many demanding fences – 30 in all – have to be jumped.
- Four particularly unusual and awkward fences catch horses out.
- There are concerns about the horses' abilities and experience, and the demands made upon them. Fewer than 39 per cent have finished the race in the past 10 years.
- The crowded field of 40 runners causes death and injury.
- The extreme distance – four-and-a-quarter miles – makes it the longest in Thoroughbred National Hunt (jump) racing.

The Fences

The Grand National fences are unique. They are notably bigger than those found at other British racecourses, both in height and spread. Many have ditches on either side of the obstacle that are wider and deeper than those a horse would normally expect to jump.

It is often claimed that today's Grand National fences are considerably less formidable than those that confronted horses in Victorian times. In fact, if we look back to the course of 1897, when legendary race horse, Manifesto, won his first Grand National, there is no significant change in the total height jumped when compared with 2017. While some obstacles have been lowered by a couple of inches, others have increased by the same amount.

The fences have seen physical changes. From 1961, they were sloped on the take-off side. In 2009, run-outs were introduced that enable fences to be bypassed by the runners and loose horses.

In 2012, more changes were made to the core of the fences. Despite the 2012 changes, four horses died on the course within ten races of its implementation: Battlefront 4 April 2013; Little Josh 5 April 2013; Plein Pouvoir 7 December 2013; Balbriggan 6 December 2014. And in 2016 four horses died on the Grand National Course at the three-day Festival meeting.

It is claimed that persistent criticism of the course in recent years by animal rights campaigners has succeeded, perversely, in making the course easier and, therefore, faster and more dangerous. This is incorrect. As we have seen, the height of the fences – taken collectively – has not changed since Victorian times. And while the fences are less upright than in previous decades, those changes came about in 1961 – more than a decade before the advent of the modern animal rights movement. The fences remain as daunting obstacles. A significant danger is the sheer volume of horses taking part in the race. Since 2000 there has been a set field of 40 horses*. This makes the race much more dangerous than in former years when the mean field size, between 1839 and 2000, was 29.

(*since 2000 three races had 39 horses take part due to last-minute non-runners)

The deadly fences with examples of horses who were killed in the Grand National

Fourteen of the 16 fences are jumped twice during the race, which means that the first fence in the race is jumped a second time as the 17th fence, and so on.

Fence 1 (& 17): Plain

The 40 horses tend to come to this fence at some pace, and overcrowding is an issue first time around. This is one of the smaller fences on the course but it has brought down as many as nine horses at a time.

Tyneandthyneagain: 2006 – Fell here and was killed running into a fence later in the race.

Pashto: 1998 – Was killed in a first fence fall.

Fence 3 (& 19): Open Ditch

This is a big, five-foot high fence with a wide, open ditch on the take-off side, making the obstacle extremely demanding.

Goguenard: 2003 – Fell here and was hit by another falling horse and jockey. Severely injured, he was immediately destroyed.

Other deaths: Vulcano, Racoon.

Fence 4 (& 20): Plain

Responsible for the deaths of five horses in 50 years. Without doubt, this is the most underestimated fence with regards to its high fatality rate. It's a 'standard' plain National fence that is four-foot-ten inches high and without any ditches – yet it is deadly. There is no clear explanation as to why this is.

Ornais: 2011 – Fell and died instantly from a broken neck – clearly seen under a green tarpaulin during the BBC TV race coverage and described by their commentator as an 'obstacle on the course'.

McKelvey: 2008 – Ran loose after falling at this fence and was subsequently destroyed. Other deaths: Manx Magic, Do Rightly, Smith's Band.

Fence 6 (& 22): Becher's Brook (*additional details in later section*)

Fence & Ditch – 10 deaths in 50 years. Becher's is the Grand National's most infamous fence. It is positioned on a diagonal angle, and the four-foot-ten inch obstacle has a covered ditch and has a drop on the landing side up to five foot eight inches.

According To Pete: 2012 – Broke his shoulder when landing upon a fallen horse at this fence.

Synchronised: The Gold Cup winner fell at this fence in 2012 before sustaining a hind leg break as a consequence of running loose.

Dooney's Gate: 2011 – His back was broken after he fell and was hit by another horse.

Graphic Approach: 2007 – He fell here then ran loose and tried to return to the stables. He jumped a rail, fell, was concussed and suffered a black eye. He died a month later from further complications linked to the fall. In its reporting of Grand National deaths, the BHA has failed to acknowledge Graphic Approach as a fatality.

Other deaths: Alverton, Winter Rain, Dark Ivy, Brown Trix, Seeandem, Eudipe.

Fence 8 (& 24): Canal Turn

The course takes a challenging 90-degree turn immediately after this fence. This causes crowding in the approach, as jockeys fight for an inside berth.

The Last Fling: 2002 – After leading the field for the majority of the race, this tired horse was killed falling at this awkward five-foot high fence.

Roll A Joint: 1990 – A Scottish Grand National winner, he took a deadly fall here on the first circuit. His body could be briefly seen on TV, part-concealed under a sheet, after he had been dragged away from the fence.

Fence 9 (& 25): Valentine's Brook

This is a five-foot high fence, with a ditch and a drop of five-foot six-inches on the landing side. Many horses have been killed here.

The famous Zeta's Son was killed at Valentine's Brook in 1977.

Two horses, Plaisir D'Estival and Prudent Honour, broke their necks in simultaneous falls in 2010 during the Topham Chase, which is run over the Grand National course.

Fence 15: The Chair

This is the highest fence on the course, at five-feet-two inches, and also the narrowest. A six-foot wide ditch immediately precedes it. Its total spread is 11 feet. It is jumped only once. Deaths include: Grey Sobrero, Land Lark, Kintai.

Changes to the Race

Various changes to the course have been introduced over the years in the name of improved safety. But some of these 'safety measures' have subsequently been reversed. (See below)

Extreme distance of the race

The race has increased in distance over the years – from four miles, up to four-and-a-half, to the present distance of four-and-a-quarter miles. The event has seen numerous horses collapse at the end of the race, some of whom have died. Most recently, in 2009, Irish horse Hear The Echo collapsed and died, shortly before the finishing post. Millions of television viewers were especially distressed to see the 2011 Grand National winner, Ballabriggs, being thrashed at the end of a race that left him so exhausted, that he needed oxygen. His jockey, Jason Maguire, was banned from racing for five days but kept his prize money and his winner's position.

'Quality' of horses entered

It has recently been stipulated that all runners in future Grand Nationals must have finished in at least fourth place in a Steeplechase of no less than three miles at some time during their career. Finishing well in a typical three-mile steeplechase, however, is no guarantee that a horse is able to meet the very special demands of the Grand National.

While the minimum rating of entrants has now also been raised, from 110 to 120, the British Horseracing Authority itself admits that this will make very little difference to a horse's ability to cope. This is because *'In only one race since 2000 has a runner rated less than 120 taken part in the Grand National.'*²

Another issue relating to Grand National entrants has been the age requirement. In 1987, the minimum age of participating horses was increased from six to seven years, but this was reversed back to six in 1999 and back once more to seven for the 2012 race. These changes, however, have virtually no relevance given that very few six-year-olds have been entered into the race since 1999. Animal Aid is aware of no deaths from that age group in the race since that time.

A significant increase in the number of runners

From the race's inception in 1839 through to 1999, the average number of runners was 29. The implementation, in 2000, of a set number of 40 runners represented an increase of some 38 per cent. The race organisers suggested that they set a maximum of 40 runners in the interests of safety, but this is not credible when the history of the race is considered.

In 2011, crowding and speed were important contributory factors in the early deaths of two horses – that of Ornaïs during the fast early pace of the race, and Dooneys Gate who was killed in a melee at Becher's Brook.

In November 2011, due to public outrage, changes were announced by the British Horseracing Authority to the structure of the course and to the rules governing which horses can take part. Though much trumpeted by pro-racing journalists, the changes failed to tackle the lethal nature of

²The British Horseracing Authority, 'The Grand National: A review of safety and welfare', November 2011

the event. Despite reducing the drop on the landing side of Becher's Brook, two horses were killed in the 2012 race following falls at the fence. The British Horseracing Authority and Aintree racecourse had failed to deal with the issues of crowding and speed, both of which were contributory factors in the deaths of the Gold Cup winner Synchronised and the outsider According To Pete.

In September 2012, the BHA released details of further amendments, which, however, failed to reduce field size or remove Becher's Brook – key reasons why the race is so hazardous.

Inherently Lethal

Animal Aid's view is that the race is inherently dangerous because of the racecourse design and race conditions. There are further improvements that could be made that would go some way to reducing the horse injury and death rates.

Reducing the Risks:

- 1. Reduce the number of horses** who race from 40 to fewer than 30. The Grand National's mean number of runners from 1839 until 1999 was 29.
- 2. Remove the Starting Tape.** This would stop anxious horses becoming caught up in the tape. It would also stop repeated false starts (another cause of anxiety in horses) due to jockeys lining up too close to the tape. Since the 2013 race, the Starting Tape has been moved, but it should be removed completely.
- 3. Remove Becher's Brook fence.** The dangers of the fence are evident. Despite changes over the years, no adjustment has had a significant impact on the fence's attrition rate.
- 4. Remove the drop element on fences.** The ground on the landing side of fences should never be lower than on the take-off side.
- 5. Reduce the distance of the race from four miles and a quarter.** The race distance has been shorter during its history.
- 6. The use of out riders to catch loose horses,** who have lost their jockeys and have become separated from the other runners.
- 7. Horses who get loose before the start of the race should be withdrawn as a mandatory procedure.** Synchronised was loose minutes before the start of the 2012 Grand National. Despite reportedly having a veterinary inspection, both he and his fallen rider, AP McCoy, would have been shaken up, and this is likely to have had a negative effect during the race.

Less Obvious Problems

While the problems above are fairly clear to see, other aspects also require serious consideration.

- 1. Some jockeys have never previously ridden their Grand National mounts. This is not acceptable.**
- 2. Any jockey who has been declared to ride a horse in the Grand National should have recently ridden and schooled that same horse in training or in another race.**
- 3. The number of fences per mile.** There are a greater number of fences on the Grand National course in relation to the race distance than on other British National Hunt racecourses.

Average number of fences in relation to distance raced on British racecourses: 2m Chase = 12 fences = 6 per mile

2m 4f Chase = 15 fences = 6 per mile

3m Chase = 18 fences = 6 per mile

3m 2.5f Chase = 22 fences Gold Cup Cheltenham = 6.64 per mile

4m Chase = 25 fences NH Chase Cheltenham = 6.25 per mile

4m 2.5f Chase = 30 fences Grand National Aintree = 7.06 per mile

If the Grand National course were to be brought in line with other racecourses, the horses would be confronted with a maximum of 26 fences.

4. Visual problems for the horses posed by fence design.

- Though horses do not see the same colours as humans, a padded orange rail half way up and all along the plain fences may deceive the horses into thinking that the rail is the top of the fence and so look to jump for that point, see diagram (a).

In studying the deaths of Ornaïs in 2011 at Fence 4, and Dooneys Gate at Becher's Brook Fence 6, this emerges as a genuine possibility.

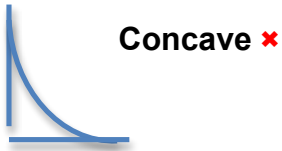
(a)



Note that there is an orange sight board for horses to judge the base of a fence. A sight line at the top of the fence would also be helpful, but not in the middle as is seen.

- All plain and ditch fences look to have a negative concave appearance to horses on their approach. This is accentuated on plain fences by the mid-height orange rail, and on ditch fences by the open-ditch behind the orange sight board. These are visual problems that will not allow horses to judge the fences' true positions. If all fences had a convex shape, this would help the horses to jump correctly. See diagram (b)

(b)




The problems with Becher's Brook

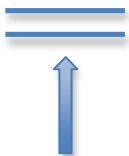
Becher's Brook is the most lethal fence on the Grand National course. There are several reasons for this:


- A visual problem caused by the orange rail half way up and all along the fence
- Its position on the course – coming at the end of a fast straight after five demanding fences have been jumped
- Its angled position on approach
- The camber/drop element of the fence on landing
- The turn after it has been jumped

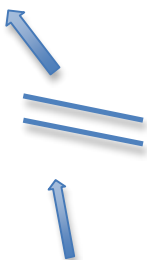
This fence's positioning is poor, with a left turn immediately after the fence is jumped. The fence is also angled and is not jumped head-on, as a normal fence would be, as in (Plan View) diagram (c). Horses have to jump the fence at an angle as in (Plan View) diagram (d). In addition, jockeys steer their mounts to the nearside, accentuating the angle to be jumped even more.

Plan View:

(c)  Normal Direction of horses and course before and after jumping fence

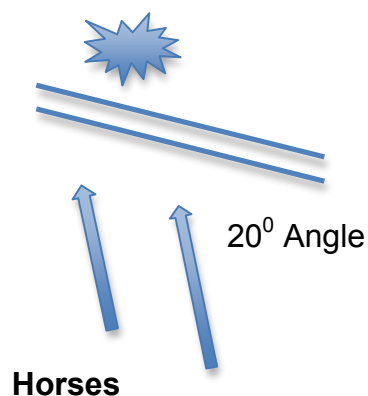


(d)  Direction of horses and course before and after jumping Becher's Brook fence



When looked at in more detail in (Plan View) diagram (e), the majority of the horses jump the fence approximately at a point one-third of the length from the inner (near) side.

(e) **The point at which most horses fall or are brought down**



The vast majority of the jockeys guide their horses to the middle/nearside of Becher's Brook. After completing the jump, there is a turn. Few jockeys take the option of the offside of the fence when jumping.

Many horses twist their hind quarters when jumping the fence – an example being the ill-fated Synchronised (the horse with the white blaze, centre, in the photographs, below).



Conclusion

The Grand National course is, by design, extraordinarily challenging and dangerous and routinely kills horses. Various changes have been made to the course and the event itself over the decades – not always aimed at minimising the risks. Taken together, these changes have failed in their presumed objective: to reduce the rate of horse fatalities. The evidence strongly suggests that the Grand National course will remain a death-trap for horses unless the key features by which it is known – fences like Becher's Brook, Valentine's Brook, The Chair and Canal Turn – are removed.

In addition, both the length of the Grand National race and the number of horses entered need to be significantly reduced. If these changes are made, the race would then become a typically hazardous jumps event.

Horse Death Statistics

Grand National Horse Fatalities since 2000

- 2002 **The Last Fling** – Fatal Fall **Manx Magic** – Fatal Fall
- 2003 **Goguenard** – Fell – Injured. Destroyed
- 2006 **Tyneandthyneagain** – Injured. Destroyed
- 2007 **Graphic Approach** – Injured. Died later from complications
- 2008 **McKelvey** – Injured. Destroyed
- 2009 **Hear The Echo** – Collapsed. Died close to the finish line
- 2011 **Ornais** – Broke Neck **Dooneys Gate** – Broke Back. Destroyed
- 2012 **Synchronised** – Broke Hind Leg. Destroyed **According To Pete** – Broke Shoulder.

The Grand National Meeting's Horse Deaths 2000 to 2016

Includes: Horses killed in the Grand National (GN), horses killed in other races on the Grand National Course (GNC) and horses killed on the Mildmay Course

2016:

Kings Palace – Hurdle – aged 8 – Pulled Up Lamé. Destroyed
Gullinbursti – GNC – aged 10 – Fell Broke Neck. Dead
Minella Reception – GNC – aged 10 – Fell. Dead
Marasonnien – GNC – aged 10 – Collapsed. Fatally Injured
Clonbanan Lad – GNC – aged 10 – Collapsed. Fatally Injured
Arzal – Novice Chase – aged 6 – Finished Race Injured. Destroyed

2015:

Balder Success – Chase – aged 7 – Fell – Injured Shoulder. Destroyed
Seedling – Novice Hurdle – aged 6 – Fell – Broke Neck. Dead

2014

No Deaths Recorded

2013

Little Josh – GNC – aged 11 – Fell Broke Shoulder. Destroyed
Battlefront – GNC – aged 11 – Collapsed and Fatally Injured

2012

According To Pete – GN – aged 11 – Brought Down - Broke Leg. Destroyed
Synchronised –GN – aged 9 – Fell – Broke Leg Running Loose. Destroyed
Gottony OS – Hurdle – aged 4 – Broke Down Injured. Destroyed

2011

Leo's Lucky Star – Chase – aged 9 – Injured. Destroyed
Inventor – Hurdle – aged 6 – Injured. Destroyed
Dooneys Gate – GN – aged 10 – broke back
Ornais – GN – aged 9 – Broke neck

2010

Baba O'Curragh – National Hunt Flat – aged 4 – Knee Injury. Destroyed
Pagan Starprincess – Hurdle – aged 6 – Head Injury. Killed Instantly

Plaisir D'Estuval – GNC – aged 7 – Broke Neck
Prudent Honour – GNC – aged 8 – Broke Neck
Schindlers Hunt – Chase – aged 10 – Broke Foreleg. Destroyed

2009

Hear The Echo – GN – aged 8 – Collapsed & Died
Mel In Blue – GNC – aged 11 – Broke Neck
Exotic Dancer – Chase – aged 9 – Collapsed & Died
Moscow Catch – Novice Hurdle – aged 6 – Broke Neck
Lilla Sophia – National Hunt Flat – aged 4 – Broke Leg. Destroyed

2008

McKelvey – GN – aged 8 – Injured. Destroyed
In The High Grass – GNC – aged 7 – Fatal Fall
Time To Sell – GNC – aged 9 – Fatal Fall

2007

Graphic Approach – GN – aged 9 – Injured / Later Complications. PTS
Lord Rodney – GNC – aged 8 – Brought Down Injured. Destroyed
Into The Shadows – Hurdle – aged 7 – Internal Haemorrhage During Race

2006

Tyneandthyneagain – GN – aged 11 – Injured. Destroyed
Terivic – GNC – aged 6 – Fatal Fall

2005

Lilium De Cotte – Hurdle – aged 6 – Internal Haemorrhage During Race

2004

No Deaths Recorded

2003

Goguenard – GN – aged 9 – Injured. Destroyed
Coolnagorna – Novice Hurdle – aged 6 – Fatal Fall

2002

The Last Fling – GN – aged 12 – Fatal Fall
Manx Magic – GN – aged 9 – Fatal Fall
Anubis Quercus – GNC – aged 9 – Fatal Fall
Desert Mountain – Chase – aged 9 – Fatal Fall

2001

The Outback Way – GNC – aged 11 – Brought Down Injured. Destroyed

2000

Tony's Tip – GNC – aged 8 – Fatal Fall
Rossell Island – GNC – aged 9 – Fatal Fall
Strong Promise – Chase – aged 9 – Fatal Fall
Lake Kariba – Chase – aged 9 – Collapsed & Died
Architect – Novice Hurdle – aged 4 – Fatal Fall

Mildmay Racecourse at Aintree

Aintree also boasts the Mildmay course, on which several jumps races are run during the three-day April meeting. It is much smaller in circumference than the Grand National course, and has traditional fences and hurdles.

More races take place on the Mildmay than on the Grand National course itself. Fatalities occur routinely.

The chart below highlights the dangers of racing on the Mildmay racecourse at Aintree:

Chart: Breakdown of Deaths at the three day Aintree Grand National Meetings 2000 to 2016

Year	GN Race	GN Meeting Course Foxhunters / Topham	Mildmay Chase / Hurdle / NHF	Total
2000	0	2	3	5
2001	0	1	0	1
2002	2	1	1	4
2003	1	0	1	2
2004	0	0	0	0
2005	0	0	1	1
2006	1	1	0	2
2007	1	1	1	3
2008	1	2	0	3
2009	1	1	3	5
2010	0	2	3	5
2011	2	0	2	4
2012	2	0	1	3
2013	0	2	0	2
2014	0	0	0	0
2015	0	0	2	2
2016	0	4	2	6
Total	11	17	20	48

Additional Information

Races are held on the Grand National Course during the Grand National Meeting as well as in the winter months. Races run over the Grand National Course are the Fox Hunters' Chase, the Topham Chase, the Grand Sefton Chase and the Becher Chase.

Chart: Deaths on the Grand National Course 2000 to 2016 *NB Grand Sefton Chase re-run from 2003*

Year	GN Race	GN Course - GN Meeting Foxhunters/ Topham	GN Course - Nov/Dec Meeting Becher/Sefton	Total
2000	0	2	0	2
2001	0	1	0	1
2002	2	1	0	3
2003	1	0	0	1
2004	0	0	0	0
2005	0	0	0	0
2006	1	1	0	2
2007	1	1	0	2
2008	1	2	0	3
2009	1	1	0	2
2010	0	2	1	3
2011	2	0	0	2
2012	2	0	0	2
2013	0	2	1	3
2014	0	0	1	1
2015	0	0	0	0
2016	0	4	0	4
Total	11	17	3	31