



# THE IMPORTANCE OF GOOD NUTRITION AND ITS BEARING ON MENTAL HEALTH

**U**nique to the racing industry is the daily need for staff to meet required maximum weights. Many in racing already believe they understand nutrition and the best methods to make weight, using tried and tested practices that have been in common use for decades. The perceived success of such practices leads to an attitude of 'it works for me' and a reluctance to change or adopt new suggestions, and few consider the future consequences on health in later years.

Dehydrating and starvation to make weight is commonplace, and long periods in saunas and salt baths,

laxatives and self-induced vomiting are familiar practices. The health implications associated with these include poor bone density, hormonal issues and impaired mood profile. Despite increased awareness of these problems, they remain as common globally as they were thirty years ago.

To help address this, the UK-based Racing Foundation awarded a grant of just over £200,000 to support a ground-breaking, nutritional intervention programme developed over three years by a specialist team at the Research Institute of Sport and Exercise Sciences at Liverpool John Moores University. The team is led by former jockey, Dr George Wilson, and includes the head



of nutrition for cycling's Team Sky, Dr James Morton, and Daniel Martin, a doctoral researcher and high-performance nutritionist for the Professional Jockeys Association.

Dr Wilson has already spent seven years (part-funded by the Sheikh Mansoor Racing Festival) researching the serious health implications of extreme weight-making practises in jockeys and has designed healthier, alternative weight-making programmes. In addition to offering the facilities at the University to measure bone and body composition, hydration, metabolism and provide strength and fitness assessments, he also works with racing organisations to provide workshops, tests, presentations and bespoke advice. He is in the ideal situation to conduct research into the health issues faced by racing staff, having ridden as a National Hunt jockey in his younger days.

"For my first ride as a conditional jockey at Southwell in 1985, I lost a stone in five days to make 10st (63.50 kg) minimum weight, felt awful and, given the occupational risks, I shouldn't have been near a horse, let alone riding in a race," he reflects on his experience. He later rode as an amateur mostly in point-to-points and hunter chases when weight became a problem. "Having ridden over jumps, I fully empathise with staff and understand the need for, and risks from, dehydration and starvation. Riding out stable staff are weighed in some yards and most vacancies are advertised with a maximum weight, so making weight is not just a problem for jockeys but also for a lot of racing staff.

"I was aware that not a lot had changed since my own time in yards in the 1980s and 1990s and so I decided to do my doctorate in the effects of common weight-making practices such as dehydration and nutrition (or lack of!). In 2009 I started my first research and have now had 11 papers published."

Currently, Dr Wilson is studying the effects of diet, dehydration and bone health of jockeys, but, as he recognises, comparisons of bone density between standard

  
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12st athletes and 9st, (57.15 kg), jockeys may have potential flaws given jockeys are an atypical population, being much smaller athletes. Furthermore, unlike other athletes, jockeys don't tend to perform substantial hard surface training that helps maintain healthy bone metabolism.

Assisting Dr Wilson is Daniel Martin, and their paper, *Qualitative Research in Sport, Exercise and Health* (31 August 2017), is the first body of research to investigate the opinions and practices of racehorse trainers in relation to rider welfare. Disappointingly for the researchers, from over 400 invitations, only five trainers expressed an interest to take part, something that certainly needs addressing.

A reluctance to face up to industry problems isn't new and is not confined to trainers. "When I first went to the British racing industry authorities and said I wanted to do this, they originally didn't offer any help," he reveals. "There appeared to be a reluctance to accept that the current services and advice to help riders, particularly with weight-management, were clearly not working. Therefore, I just 'kicked on' with my research, and because jockeys had not received the sports science support in the past, they flocked to LJMU to undergo the testing and receive bespoke weight-management programmes.

"Thankfully, now everyone is aware of the issues and have embraced the research findings on healthier weight-management practices, and it appears we are all singing from the same hymn sheet. Indeed, Dr Jerry Hill, the Chief Medical Advisor at the British Horseracing Authority, is a collaborator on some of my recent published research and we have some other research projects we are currently working on together."

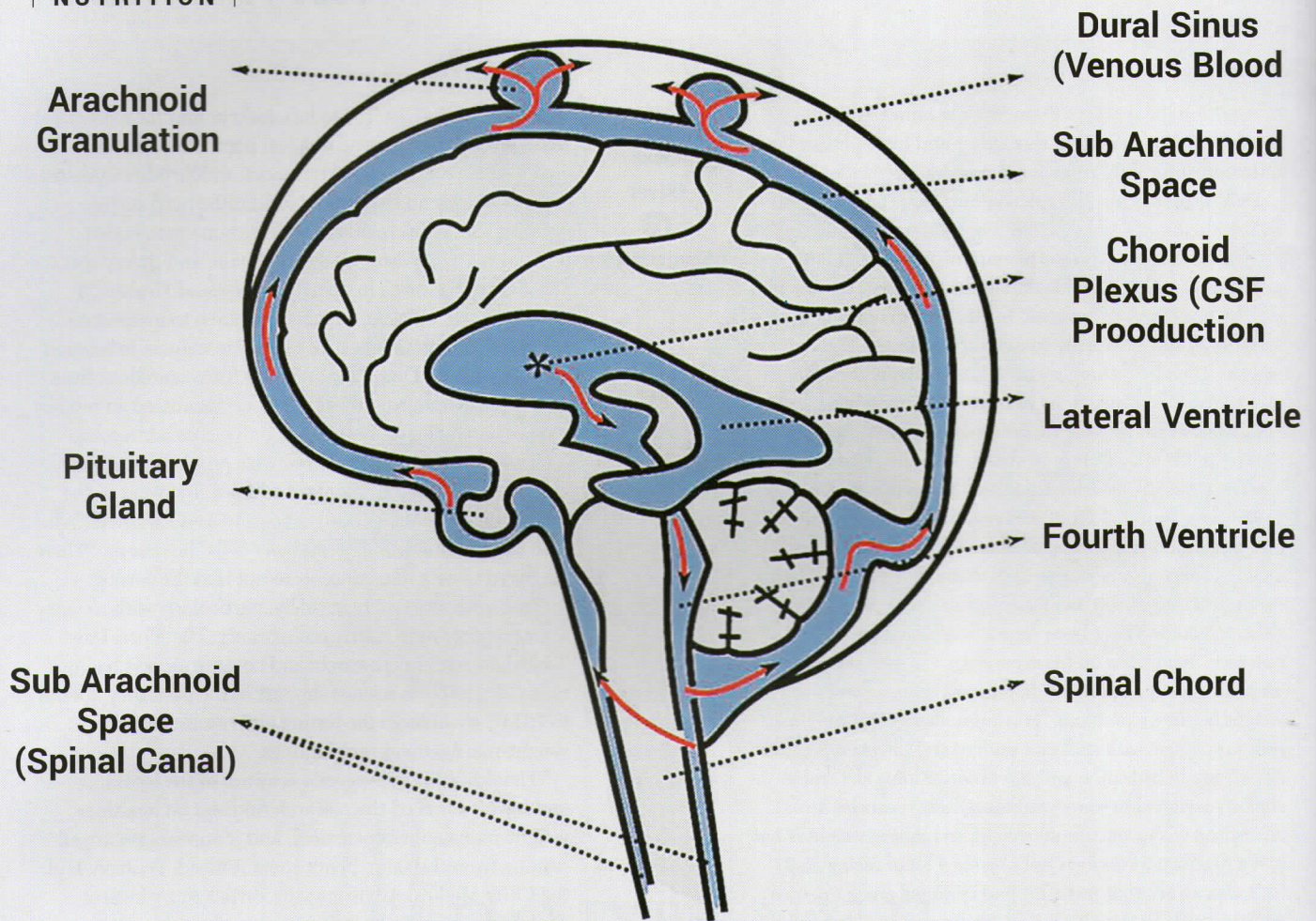
Even so, it is an industry culturally-driven and based on the shared knowledge and experience of its senior professionals, which can represent an obstacle to Dr Wilson and his team when some of that knowledge is outdated and incorrect. As Martin explains within one of the published

**BELOW:**  
It is the responsibility of the trainer to ensure younger staff members are set a good example

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< papers, “If apprentice and conditional jockeys can carry some knowledge of evidence-based practices and the dangers of traditional methods into their early careers, there will be less of a reliance on seeking advice from senior jockeys. Similarly, over time the ‘new’ practices will hopefully supersede the current archaic medley of dehydrative methods.”

It certainly behoves trainers to ensure that younger staff members are set good examples and it isn’t asking too much of their time or level of expertise to provide suitable meals, in yards where catering is offered. Where meals are not provided, posters and literature should be made available to display in the yard to help encourage awareness of a good diet.

The Liverpool team’s research has already identified that poor nutrition habits may be inherited from one generation of jockey to the next. Up to 85% of current professional jockeys have a parent or sibling either still currently riding, or now retired, which may well contribute to the estimated 63% of jockeys who prefer to seek weight-making and nutrition advice from their senior peers and retired elders rather than a qualified nutritionist or dietician. This obviously applies also to other staff members, particularly work riders.

Mental health is another major area of research that has revealed a connection to diet, and the clinical tests for measuring mood in lifestyle have shown Dr Wilson and his team that staff struggling to make weight “are not the happiest bunnies.” Furthermore, studies into concussion have shown that due to lower levels of the body’s natural chemical production to protect the brain, those suffering from depression are far more likely to suffer a concussion in a fall.



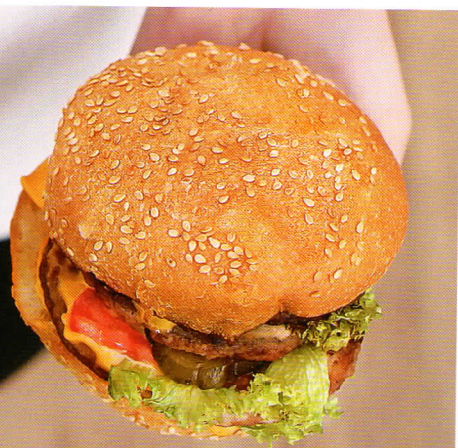


"You are what you eat and you're not happy if you have a poor diet," says Dr Wilson. "Staff now have to watch their weight and some yards set weight limits. Traditionally, how to make weight is to undergo food restriction and even starve. When you're hungry, you're not in the best mood, and that has massive implications.

"There are many riders who now use science and understand energy balance, and some trainers have bought into this and recognise the benefits this has on their business. If your staff are happy, your horses are happy; but we are only seeing the 'grass shoots' of change and only a handful of trainers to date have taken on board the recommendations from mine and Dan (Martin's) research. I am confident, however, with the backing of the industry stakeholders which we largely have now, that as the message gets across this should increase.

"The power that trainers have is unquestionable," he points out. "Trainers are integral to improving the lifestyle of their staff, as well as most importantly themselves. They have a lot of control and the power to instigate change. Let's not underestimate that their business is a non-stop hamster wheel and this brings with it a lot of stress; therefore they need to look out for their own welfare, as well as obviously the welfare of their horses, jockeys and staff."

Martin has conducted studies into the psychological side and he and Wilson acknowledge that the biggest problem is that the racing industry is culturally-driven and needs to be breaking the old accepted norms. "The young still look to their seniors for advice and example, but there is evidence people do want to change."



**LEFT:**  
New dietary guidelines could ease jockeys' longstanding battle with the scales

The research Wilson conducted in 2009 showed the existing nutritional guidelines of the time to be incorrect and based upon guidelines for general athletes rather than jockeys, who in comparison have much lower energy expenditure.

"The science was based on other athletes who burn off 3,500-4,000 calories a day, but jockeys have only high activity for a short period of time so would typically burn more around 2,500 calories even on a really busy day. So we changed the guidelines to specifically suit jockeys, and hence many started fuelling better and making weight without the reliance on sweating and starving. These practices still do go on in racing across the world, however. Again, we are seeing change and the hope is that the next generation of riders coming through will have the education and therefore the knowledge to make weight safely."

Once again this means re-educating and affecting change in an industry that isn't renowned for embracing new ideas and tends to work on the principle 'if it works for me why stop?' "This is not unique to racing and, as shown in recent years in other weight-making and non-weight sports like boxing and football respectively, when the culture changes for the better the athlete welfare changes for the better.

"We have to make people believe in it and buy into it," Wilson enthuses. "Trainers, jockeys and work riders are self-employed so it can be a lonely industry and they're often left to their own devices, but the industry now recognises this and is pulling together. People are now being more candid."

According to UK Health Service figures, at any one time around one in six adults may be suffering from a mental health problem. The racing industry is probably unique in the candour currently shown by the many individuals who have come forward to speak of depression and this has led to a greater awareness and proactive approach to mental health. Dr Wilson and the team report a case-study showing that the mental wellbeing of a professional National Hunt jockey in the UK could be improved with a dietary and exercise intervention, suggesting that dietary practices may be responsible for impaired mood profiles.

This could be important research, with mental health of such concern to the industry, to the extent that Racing Welfare, with the joint support of the National Trainers Federation and the Thoroughbred Breeders' Association, supported a Mental Health Training Day at Lambourn in May. The training day was oversubscribed and was later repeated in Middleham and Newmarket.

Run by Mental Health First Aid England, the idea of the course is to train someone to become a key point of contact for anyone within a team who may be struggling with their own mental health or be worried about that of someone else. The trainee need not necessarily be a member of the yard management structure, but simply a trusted member of staff who others are likely to confide in, and one who is interested in learning about what to do to help maintain the wellbeing of others.

Simone Sear, Director of Welfare, found feedback from the courses positive and will be running an additional day later in the year. "Many felt that if the instructors had known more about the racing industry it would have been perfect, so we are now training three of our very experienced welfare officers, who are already trained councillors, to become full Mental Health First Aid instructors," Sear explains.





< In September, Racing Welfare launched a nationwide Racing Occupational Health Service, providing an occupational health check with a nurse for anyone in the industry. Individuals may request a health check, or may be referred by their employer, GP or any other professional.

“We have also commissioned a mental health study, by a team at the Liverpool John Moores University, for the whole of the industry, to discover what the problems are and how we can best provide help,” reveals Sear. “We should have those results in May 2019.”

The recent research by Dr Wilson and his team in professional jockeys has demonstrated that a high protein, low glycaemic index carbohydrate diet (for example, dried beans, kidney beans and lentils, all non-starchy vegetables, and some starchy vegetables such as sweet potatoes, most fruit, and many whole grain breads and cereals), providing a total energy intake equivalent to resting metabolic rate, can facilitate fat loss whilst still maintaining lean tissue and improving performance markers. The jockeys in this test were also asked to jog for 30 minutes each morning pre-breakfast at 75% of the heart rate maximum, and to refrain from wearing sweat-suits or additional clothes to intentionally sweat.

Following the six-week dietary intervention, the jockeys were significantly lighter in total body mass, body fat in kilograms and body fat percentage, and maintained lean mass. There were no significant changes for hip and lumbar bone density, but metabolic, respiratory and physical data showed significant increases in resting metabolic rate, chest strength, leg strength and jumping height. The resting heart rate was also significantly lower.

The jockeys were also asked to complete a General Health Questionnaire (GHQ-12), which is a widely used and highly reliable measure of psychological distress in the general population, capturing symptoms of depression,

**ABOVE: The study found jockeys' mental well being improved for dietary change**

anxiety, social dysfunction, and loss of confidence.

The GHQ-12 data showed that prior to the dietary intervention, a significant proportion of jockeys (21.4 %) could fall into the classification of psychiatric ‘caseness’ or likely to be suffering from depression or anxiety and requiring specialist clinical input. The mean GHQ-12 score was 10.3 prior to the dietary intervention, reducing to 8.9 after the intervention. The number of ‘psychiatric caseness’ reduced from 2 out of 10, to 1 out of 10 following the dietary intervention.

This was the first study to use the GHQ-12 in jockeys to detect possible psychiatric disorders and assess psychological distress before and after dietary intervention, and highlights the importance of a good diet for stable staff. The reliance on archaic methods of wasting and dehydration need to be actively discouraged, as does a dependence on fast food and irregular mealtimes. Instead, enabling and supporting three meals a day that include recognised healthy foods will not only improve the health and wellbeing of staff, but of the business too. **T**

**References:**

The horseracing industry's perception of nutritional and weight-making practices of professional jockeys, Qualitative Research in Sport, Exercise and Health, (D. Martin, G. Wilson, J. P. Morton, G. L. Close & R. C. Murphy) <http://dx.doi.org/10.1080/2159676X.2017.1340330>

Fasted Exercise and Increased Dietary Protein Reduces Body Fat and Improves Strength in Jockeys, Authors G. Wilson, P. P. Pritchard, C. Papageorgiou, S. Phillips, P. Kumar, C. Langan-Evans, H. Routledge, D. J. Owens, J. P. Morton, G. L. Close

Chapter 10.4 of the National Trainers Federation (NTF) Employment Guide contains advice for trainers in managing an employee with a mental health condition. Advice on individual issues is available from the NTF office and NTF 24-hour legal helpline 01488 71729 and 0333 003 0159

[www.racingwelfare.co.uk](http://www.racingwelfare.co.uk)