The Effects of Jockey Extreme Dieting to Injuries on the Track

Lessening the health risks on and off the track by increasing weight allowed

Tag Words: horse racing, jockey, health, safety, injury

Authors: Brooke Domino and Julie M. Fagan, Ph.D.

Summary: Due to jockeys carrying minimal weight, they often face major health issues resulting from extreme dieting, this also leads to poor bone strength causing higher percentages in fractures. To help lessen the strain put on jockeys to battle their weight, bug rider weight starting at 105 should be increased to at least 110. The five pounds means a lot to the jockeys and since racehorses already carry an average of 130lbs in morning exercises, 5 extra pounds starting with an apprentice rider should not harm the horse any further. California has shown in the past programs to help which include raising jockey weights, this step can help jockeys a lot. Another solution could be that jockeys have to endure mandatory pre-race evaluations, this could measure BMI scores and judge overall how healthy the rider actually is and if they are indeed fit enough to endure races. As drugs in the industry have become more nationalized, weight limits should as well so starting a nation increase in jockey weight is the first step. Doctors that are already on hand on race days can help by doing pre-race exams for the jockeys as well as classes can be made for jockeys to learn how to lose weight properly which could also include family since often they are left in the dark upon these issues. Topics such as different things to eat/cook can help jockeys maintain weight while allowing friends and family to help as well.

Video Link: http://youtu.be/iTKy1GlJvG

Title of your issue: The Effects of Jockey Extreme Dieting to Injuries on the Track

Introduction:

Jockey safety is a major problem seen today in horse racing due to multiple factors such as weight and the tracks themselves. One of the oldest sports across the globe, with its roots going back as early as the Mongolian Empire, often lacks attention to ordinary people and the struggles faced by those who partake. The issue of jockey safety has been on the forefront of horse racing for many years, however is rarely faced due to concerns with other issues. Jockeys risk their lives every race climbing on 1200lb animals for the sake of a career. In doing so they carry a minimal weight due to rules and regulations in
horse racing which ultimately are detrimental to their safety. Malnutrition leading to weak bones as well as lack of body fat making injuries easily occurred and often more serious.

Issues such as these are being addressed in other tracks around the nation. In the recent deaths of 3 jockeys being killed within a 4 day period, officials can’t help but question what can be done to limit these fatalities and help make racing safer for all. California being one of the leading states towards jockey safety is known for increasing their weight for jockeys with positive results. By increasing the weight jockeys are allowed to carry as well as instilling synthetic surfaces and safety rails on their racetracks, this has lowered the number of catastrophic breakdowns leading to less jockey injuries as a whole. If California can begin to change the tracks and weight regulations with a high success rate, then how come the rest of the tracks aren't eagerly following?

*Life of a Jockey: From the Beginning*

Being a jockey is an occupation that many fail to realize how much goes into it. The sport of horse racing is not as popular as other sports such as football and baseball, however is one of the oldest and most physical sports across the globe. As the sport matured and became recognized as a professional sport, the need for professional jockeys became necessary and the sport began to unfold. While this is a professional sport, unlike football and baseball, jockeys do not make any money unless they ride and win. They do not get a paycheck for sitting on the sidelines when injured to the need to stay healthy and ride is ever prevalent. Jockeys have always been known to many for their lightweight and small stature, however many lack the reasoning behind this. A statement said by the nation’s leading jockey, John Valasquez describes the brutal truth about jockey’s strength and weights, “The other professional athletes have to be stronger, bigger, faster...We have to be smaller, skinnier, and lighter--and stronger at the same time. There’s a lot of discipline involved, and not everyone can do it” (A.P,2008, 26). As jockeys begin their career, they start of as an apprentice rider. In doing so they have an advantage of having to carry the smallest amount of weight which is when a rider is called a “bug rider” or that they have their “bug.” During this they start with their ten pound bug making them have to weigh 105lbs due to their equipment adding weight so they weigh in total 107lbs. As they progress in their career, they continue to have their bug a year after they win 35 races. When they first start off the jockey carries their ten pound bug until they win 5 races, which after that it is then lowered to seven pounds. This they carry until they win 35 races which then after the 35th win, they carry a five pound bug for the remaining year. This is a crucial time period for jockeys which is when the fate of their career is decided. This is also the time where jockeys struggle with their weight the most. Such demands for carrying lighter weight adds “pressur[e] for jockeys to maintain low body weights, [which] increase[s] the risk for jockeys to acquire disordered eating habits and to adopt other un-healthy behaviors” (Hendricks, 2009, p.8). Jockeys who race in the Kentucky Derby are allowed to weigh 126lbs which is close to the same weight most horses carry during exercising in the mornings (A.P,2008, 26). If the horses at levels such as Grade 1 derby’s can carry the weight of the average exercise rider in the morning, how come jockey’s cannot weigh the same. It is because of these restrictions is what leads to long term detrimental effects to the
jockeys as well as life-threatening side effects such as dehydration and psychological impairment both on and off the track due to malnutrition and water loss.

*Life of a Jockey: The Battle for Weight*

When a jockey has their bug, this is the most important time to keep their weight down. This is also what most people do not realize is that it is not the height of the jockey that matters but it is the weight. There is no height requirement to become a jockey however it is easier to keep weight down the smaller you are. The weight is the most crucial part of being a jockey as well as having the skills to be a good race rider. As jockeys continue to ride and look for horses to ride, they are constantly under scrutiny by trainers and owners; the slightest mishap can be crucial as well as a jockey that struggles to maintain their weight on race day. This is the time where most jockeys battle to maintain their weight and where most health issues begin to arise. The average weight for a jockey is between 108-118lbs. This weight is an extremely unhealthy weight for the average jockey who stands at between 4’10” and 5’6”, the average being 5’2” tall. The average weight for a female of 5’2” is 125lbs, while a male’s average weight is 137lbs, so having to cut down to 105lbs is a big stretch which not many people can do (Height to Weight Ratio Chart). The amount of dieting that contributes to this extreme weight loss is extremely critical and harsh however many jockeys tend to go easier routes and ignore the negatives. They begin to create unhealthy habits which become detrimental to their health in the long run after their racing career is over. “Pressures of competition, added to existing requirements of very low body weights, increases the risk for jockeys to acquire disordered eating habits and to adopt other unhealthy behaviors in order to make weight. Examples include:

- Vomiting
- Abuse of laxatives and diuretics
- Saunas and hot baths to lose water weight
- Excessive exercise
- Smoking to curb appetite
- Food restriction and avoidance
- Diet pills
- Fluid restriction,”

which jockeys are also known to participate in the illegal action of consuming furosemide commonly known as Lasix (“Bulleted summary,” p.3). These extreme diets cause major effects in health down the road due to continued misuse of these techniques. The effects of bulimia alone are enough to destroy one’s body having effects such as; tooth erosion, cavities, gum problems, water retention, abdominal bloating, stomach distress, fluid loss with low potassium levels, irregular or lack of menstrual periods,
swallowing problems, esophagus damage, and in some severe cases; rupture of the esophagus, and weakened rectal walls (Simon and Zieve). The drug Lasix is commonly used in racehorses prior to racing to dehydrate them in hopes of limiting the amount of bleeding that may occur in the lungs however many jockeys find themselves going to this drug to pull that last bit of weight they may struggle with. Excessive use of this drug can lead to kidney malfunctions for the jockeys as the kidneys struggle to cope with the extreme hydration and dehydration of the body. All of these issues occur so that these athletes can lose a few extra pounds before their races. Not only is the weight being lost but their strength and protection weakens as well.

**Lower the Weight, the Higher the Injury**

Due to extreme dieting of the jockeys, they often increase the risk of injury themselves. When jockeys partake in these unhealthy dieting behaviors they create “short and long term health effects such as: dental erosion, nutritional deficiencies, menstrual irregularity, low bone density, dehydration, [and] heat stress” which many affect them on race day (“Bulleted summary”, p.4). Due to malnutrition often from lack of eating or heaving, they create a lower bone density making the likelihood of breaking a bone more probable when compared to an average person of their size.

**Figure 1:**

**Percent of Jockey Injuries Acquired During Races**

As seen in figure one, this highest percentages of injuries occur to the head/neck/face region, legs/knees, back, lower leg, as well as multiple other sites often resulting in breaks and fractures. While the head and back are covered by safety vests and helmets, they can only protect so much when the body itself is already in a frail state due to malnutrition and dieting. Falling from approximately five-and-a-half feet going forty-five miles-per-hour increases the chances of anybody suffering from major fractures. Now adding a frail bone structure and no fat covering to cushion the fall, fractures are almost guaranteed during any fall. A major issue jockeys fight with during a race is heat exhaustion. Many jockeys find themselves in saunas and sweat boxes more than should be allowed, all in the aid to lose water weight. Jockey’s and sweat boxes go hand in hand as they spend most of their day after riding in the mornings sitting in this box to shed extra pounds as well as before the races to help eliminate whatever they can. A practice that is common however said to be more of a taboo now is the practice of heaving bowls found in the jockey rooms at racetracks. In these rooms there is a large porcelain bowl specifically there for jockeys who wish to ‘flip’ or vomit into them to shed those extra last pounds. While some racetracks do not have these anymore, some of the older tracks still do and the use of them is not discussed. Both the National Thoroughbred Association and the Jockey’s Guild do not have any current information on how many heaving bowls remain in use or at which racetracks. “Everyone has their own methods of losing weight,” says ex-jockey Jeff Johnston, “but rather than vomiting, I’d say the number one way is still dehydration. It’s not uncommon for guys to lose three to four pounds a day in the hot box” (Mckenzie, 2012). It is for these reasons that there has been recent movements in hopes of educating jockeys on the dangers of these extreme diets, some as extreme as starvation on top of sweat boxes which adds unnecessary risks to an already dangerous sport.

Types of Injuries and How Often they Occur

The types of injuries that jockeys receive on racing often vary due to the types of falls that occur and severity. As expressed in The National Jockey Injury Study, however, they discovered alarming percentages of these subsequent injuries. In their studies the found that 64% of injuries received while race riding were fractures, while concussions came in at a lower 8% of the injuries. In discovering the etiology of these injuries they discovered that 69% of the injuries were due to the jockey being unseated, 58% due to the horse falling, 23% due to the jockey being trampled 7% due to poor track conditions, and a total of 21% of injuries due to the jockey hitting the rail or post as well as subsequent other objects (Press et al, 237-238). In an already dangerous sport, it is safe to say safety is a major concern. While other sport such as football go to great lengths to offer body protection with pads from head to legs the force they deal with is still less than the force accompanied by an unseating event during a race. The average racehorse can run as fast as 43mph over a mile long race, this accompanied with the weight averaging around 1000lbs is dangerous in any situation. Any small or wrong move can prove to be fatal as jockeys weighing on average 110lbs go through the race with often as many as 6other horses besides their own with minimal protection. It is in these factors why horse racing can be so dangerous and lead to such tragic ends and injuries for the riders. Although there are many factors that cannot be changed, the factor of jockey’s weight is one that can be easily changed and this can lead to safer races. With a higher weight allowed, jockeys will not have to go to such extreme dieting, risking
their own bodies health for the sake of a few pounds hence making them stronger. This allows for more muscle and bone mass to help strengthen these jockeys for any situation that may lead to injuries such as fractures and even the cases of heat exhaustion and starvation that are commonly seen. By increasing the weight, the risk of fractures and fatalities is lowered which is a statistic every horseperson in the racing industry would like to see.

**Death on the track**

What many jockeys don’t realize is the long term effects of their unhealthy practices greatly effect their future and ability to race. It is estimated that 90% of jockeys pull their weight daily to ride and the same amount pull their weight drastically the day of races, up to ten pounds before they race. In a 1995 study that was conducted by Chicago Rehabilitation Institute found, “69 percent of riders said they skipped meals; 34 percent used diuretics; 67 percent sweated off pounds in the sauna; 30 percent “flipped,” the term for self-induced vomiting, and 14 percent took laxatives,” (Schmidt, 2004). While there are many risks of these extreme diets that limit their riding ability such as bone strength, dehydration, kidney and nerve damages, esophageal problems, abnormal heart rhythms, as well as muscle weakness and many more; these issues can be life threatening on the racetrack. In 2000, Chris McKenzie, 29, died of a heart arrhythmia at local known track Penn National Race Course as a result of his starvation techniques. In 1991 an Australian jockey Peter Cook suffered a heart attack due to abusive use of the racetrack sauna. Other methods that jockeys use also involve curbing appetite through the use of smoking and drugs that help decrease appetite and increase energy. Cocaine is commonly known to be used by jockeys since it reduces appetite and increases energy. These behaviors lead to addictions that add on additional problems that they already struggle with due to their weight. Chris Antley who was a two-time Kentucky Derby winner who died in 2000 due to an accidental overdose of methamphetamine and Clobenzorex (Schmidt, 2004). It is not only the act of dieting itself but the ways they go about it and how they cope with some extremities that also risk their lives and can have huge detriments on their careers.

**The Effect of Weight on the Racehorse**

Many have argued that by increasing the weight of jockeys, this would lead to more breakdowns in the long run and be bad for the racehorses themselves. Many do no realize that these horses are already carrying riders heavier than jockeys 6 days a week training for the races. Most exercise riders weight around 150-160lbs; while lighter riders are always wanted, these horses are already accustomed to carrying almost 50lbs heavier than they do on racedays. If one is to look at steeplechase racing which is more intense and dangerous than flat thoroughbred racing, their jockeys weigh on minimum 135lbs when compared to the 110lbs for flat racing. Steeplechase horses endure more pressure to their legs since they are not only running at full speed yet jumping as well, so if these thoroughbred athletes can handle this weight why can’t flat racehorses?
In a study done by Larry Wellman, he examined exactly how does the weight effect the performing racehorse and his results go against the normal belief. Most people would assume that the heavier the rider, the more pressure is added to the front legs of the racehorse resulting in higher concussion rates on the tendons, cannon bone, and sesamoid bones which are commonly injured during a race. Through his research he discovered “[t]he effect of weight at other locations other than the center of gravity can have a significant impact on oxygen consumption levels. Myers (1985) found that the cost of adding a given mass to the limbs is significantly greater than adding it to the center of mass and that this effect becomes more pronounced as the limb loads are moved distally (towards the foot)... any increase in extra weight carried along the leg and at the hoof could impact on a horse’s performance...The impact of weight along the legs and at the hoof has more impact than weight at the center of gravity” he concluded (Wellman, 1999). With these findings one can understand that increasing the jockey weight will not play as a factor in racing as long as it is done together. If one horse is to carry less weight than another in the same race although they may both be of the same physique and ability, obviously the horse with less weight will have an advantage. Due to these conclusions however it is safe to assume that an increase of the jockey weight of at least 5lbs will not greatly affect the racehorse’s performance and increase the likelihood of breakdowns since the weight is carried centrally.

**Conclusions:**

While the racing community is always in the spotlight due to drug issues and breakdowns, many overlook the risk to the jockeys. In the recent events of October with the death of Juan Saez, 17, as well as the deaths of two Australian jockeys Caitlin Forrest, 19, and Carly-Mae Pye, 26, jockey safety has now come to the forefront. Many are asking why so many jockeys are dying and what can be done to avoid it. While these deaths were results of collisions on the course and breakdowns, the injuries received could have been minimized if their bodies were in a stronger condition. “Safety is always number one in the racing game, and it's pretty hard when you've got a 50-kilogram little girl and a 500-kilogram horse and one's stronger than the other” said trainer Trevor Dansie on the death of Forrest (ABC News, 2014). This statement bluntly says how drastic the difference of strength is, and a way this can be minimized is by increasing the weight allowed.

**Community Action:**

For action, I would like to see regulations of weight increased as they did in California. If top racehorses such as those in the Kentucky Derby can carry weight such as 126lbs. Horses during the morning often carry around the same weight from their exercise riders or more. To start off as a rider you have to weigh 105lbs, by increasing this weight by 5 or even 10lbs, this can help relieve some of the struggle jockeys face while not endangering the horses since they are already use to carrying this amount of weight. California had proposed of changing the weight and had done so successfully back in 2004, their proposal was,
“Under the proposal, the minimum jockey weight would be 118 pounds for jockeys in Arabian and thoroughbred races and 123 pounds for Appaloosas, paints, quarter horses, and mules...Under the proposal, every horse would carry 10 pounds of riding gear, including any or all of the following: anti-slip pad, arm number, boots, eye protection, foam pad, gloves, goggles (four pairs), helmet cover, leggings, metal stirrups, number cloth, over-girth, pants, pommel pad, rubber bands, saddle, saddle pad, safety helmet, safety vest, silks, socks, stock tie, T-shirt, turtleneck, under-girth, underwear, and whip. These items would be weighed separately from jockeys and would not be counted as part of the weight of jockeys, who would weigh in ‘stripped, absent any riding gear, clothing.’ Jockeys weighing less than 118/123 would be required to carry extra weight to bring them up to the minimum “(CHRB, 2004).

This proposal was made by the jockeys themselves asking for a reform on the weight allowed to carry due to the many issues they face. If California can see this done, then why isn’t this being followed by the rest of the nation? Alongside increasing the weights, they also propose of examining BMI scores and creating mandatory pre-race evaluations will help to prevent jockeys from practicing unhealthy ways to pull weight prior to the race, determining if they are capable of riding through BMI scores and testing. Through this they can deem if the rider is indeed fit and healthy enough to partake in the race which would also force jockeys to focus on how they lose their weight more carefully. Lastly creating classes to help aid jockeys in information on how to eat properly and still lose weight as well as suggestions for friends and family on how to assist in helping their jockey will help to spread the education of healthy eating which can aid them in the long run of their careers. For my portion I created a PowerPoint and did a presentation for fellow co-workers at the track. This had trainers, owners, exercise riders, jockeys, and future jockeys. In this presentation I discussed the ways that many jockeys lose weight currently and proposed healthier habits that are just as successful and provide alternatives. This presentation was a success in which the jockeys appreciated the information and said how they appreciate information like this, especially to up and coming jockeys that can really utilize the information given. While some of the riders are older, they had also added that when they started riding they wish there was as much help for diet programs and alternatives instead of going to the bad habits they had learned instead. They also pointed out that many jockey school are starting to now include or discuss briefly the struggle for jockey weight once they begin racing and said how these schools and programs could benefit from a mandatory class before graduating that discusses healthy ways of losing weight and to avoid the common unsafe methods.
References:


Letter to the Editor:

Hello Mr. Jagow,

I am a current student at Rutgers University studying Pre-veterinary with a minor in equine science as well as a full time exercise rider at Monmouth Park Racetrack as well as Overbrook Training center, and part time a miscellaneous tracks, and future jockey in training. I am writing to you because for a project I am doing in school I am discussing the effects and benefits of increasing jockey weight on a national scale similar to what California had discussed to help lessen the issues that jockey’s face dealing with weight which ultimately deplete themselves of vital nutrients and strength needed on race day. While the proposal to separate the weighing in of tack and clothes instead of with the jockey has not been discussed further, I believe it is something important to look at especially in the recent deaths of 3 top athletes.

In rule 1616 of the California Horse Racing board, it is said that, “the minimum weight to be carried in all overnight races for two-year-olds only, for three-year-olds only, and for four-year-olds and upward shall be 112 pounds subject to further sex and apprentice allowances. The minimum weight to be carried in all races except handicap and stakes races, shall be 103 pounds.” This increase of minimum weight of 112 pounds is a major feat when compared to other states that demand weight to be carried as 103-105. This allows for the option to carry less weight if wanted however allows for jockeys to receive the mounts they desire at different weight classes. The news release from the CHRB, “Jockeys Seek National Health Standards, Weight Changes,” from March 24, 2004 is exactly what I have been wanting to propose to New Jersey racing as well as help move it to a national level. In this release it is said, “These items would be weighed separately from jockeys and would not be counted as part of the weight of jockeys, who would weigh in “stripped, absent any riding gear, clothing.” Jockeys weighing less than 118/123 would be required to carry extra weight to bring them up to the minimum. Additionally, the proposal would require all jockeys to maintain a minimum body fat content of 5 percent in order to ride.” Due to bad habits of weight loss, many jockeys often carry less than 5% of body fat due to unhealthy ways of losing weight due to tremendous pressure from the sport as well as trainers and owners. This lack of body fat leads to higher risks on the track resulting from higher percentages of broken bones. While it is important to stay light, most horses carry around 130lbs during morning training hours. While of course this is extreme for them to carry during a race, the extra +/- 10lbs give the jockeys room to have the proper body fat while in accompany of healthy dieting that is not so extreme. Many jockeys resort to heaving, diuretics, and saunas to help lose weight while all of these combine leads to a weakened jockey as well as weakened bones and bodily systems due to lack of proper nutrients. This can lead to other problems on the track such a dehydration which can lead to black outs and in some cases death during the races.

While many question how the increase in weight will affect the horses and if it will hinder their health any further, a study done in 1999, “The Impact of Weight on the Performance of a Race Horse,” shows that while an increase in weight does impact the horses performance, an increase of weight at the center of gravity such as where a jockey sits, has minimal impact when compared to places such as forehand, forelimb, and hoof. If the weight is increase equally among all fields, this does not give one
horse a higher chance than another since it is proportional to the weight carried beforehand. While horses do have a limit to the weight they can carry, as stated previously most often carry ~130lbs in the morning training hours. While 2-year old racing may be an exception to this rule due to the frail bone structure of the growing thoroughbred, this would be the only exception to my plan and proposal that minimal weight carried must remain the same since it is for the horses benefit or make a system so that the weight carried by the jockey is proportional to the weight of the horse to ensure the horses wellbeing as well.

While this is a lot of information to take in, the proposal back in 2004 was a win-win situation for jockeys as well as horseman. This greatly effects the jockeys health and if this was to be mandated once can also add a program that offers counseling for health practices so jockeys can learn healthier ways of losing weight without risking their safety. As horseman in such a dangerous sport we cannot also turn a blind eye to the statistics of injuries jockey’s receive even as minimal as fractures and bruises, such things that are directly related to health which go back to their dieting practices. If we are to make the “sport of kings” safer for all of those involved, we must look back into such a proposal that was said to have been agreed upon however pushed back due to complications of other issues and lack of unity. This is an issue that is extremely important and in the effects of recent tragedies such as the deaths of 3 well-known jockeys, jockey safety and health should be on the forefront of this continual battle we face as horseman in the sport.

I hope you can review my letter and consider your opinions. If you have any questions of comments feel free to contact me at *****@*****.com. Thank you for your time. I love your reports as I am an avid Thoroughbred enthusiast and looks forward to hearing from you.

Sincerely,

Brooke Domino