

A HISTORY OF DRUGS IN RACING

Part 1 of A Painful Truth:
A six-part series on medication and
the reform movement in U.S. racing



Rick Dutrow's admission that Big Brown was routinely administered steroids touched off the modern movement for drug reform in the U.S.

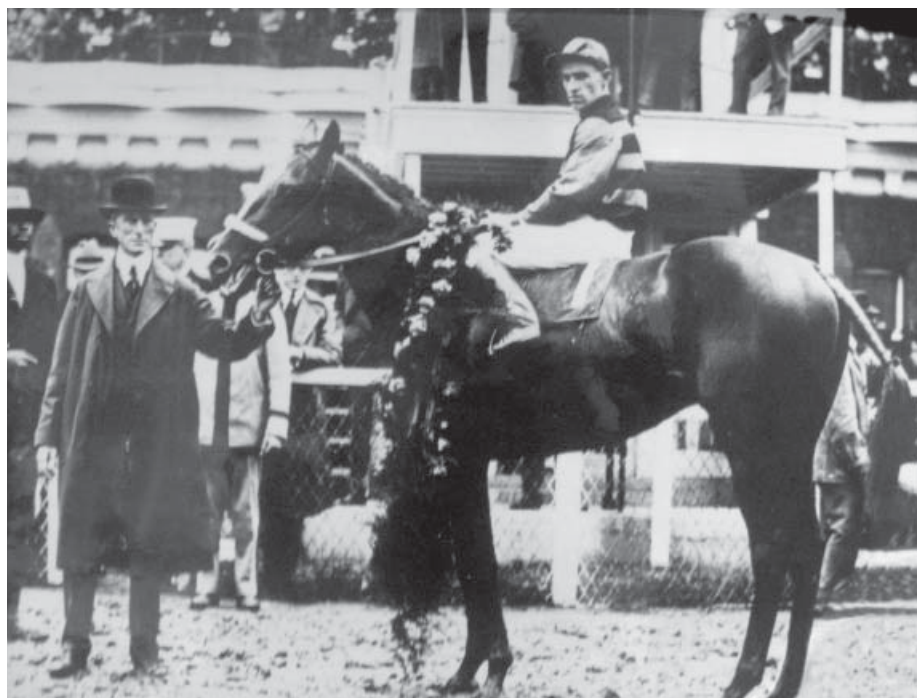
Sir Barton was doped. No less an authority than John Hervey, the legendary journalist who wrote under the pen name Salvator, declared this, reluctantly, on Dec. 24, 1932, in the long-gone Thoroughbred Record.

"I may just as well say here that while Sir Barton was a really wonderful performer, rumor – whether correctly or not – was persistent to the effect that he was what is known in slang parlance as a 'hop horse'. On account of which the prediction was also made that he would not score a great success as a sire."

Sir Barton's dam, Lady Sterling, also raced on stimulants, her owner John E. Madden asserted after her career. Madden thought it made a good broodmare. Hops were stimulants, used more or less selectively to win an important race. H.G. Bedwell, Sir Barton's trainer, had at times been ruled off the track for their use.

Still, Bedwell and Sir Barton rest comfortably in the Hall of Fame. Which speaks a truth about the history of drugs in racing, the spotlight of this story. Sir Barton's era was an untamed period for hopping horses, so much so that it was a necessity even for those who wished not to. For as long as races have been run in America, there have been horsemen eager to win them with whatever substance was at hand – a hundred years ago heroin and cocaine, fifty years ago adrenaline in oil and Benzedrine, and in decades since manufactured drugs like Butazolidin and Winstrol and Ventipulmin. Every decade has stories shouting from rooftops that racing is tainted. This headline – "Dope: Evil of the Turf" – once ran in the New York Times. No, not in 2012, but 1903.

However, this isn't meant to offer moral cover to our era. To the contrary, in the last 110 years there have been incredible changes in the types of drugs and their intended purpose. For the first half of the 20th century, trainers used stimulants or narcotics meant to get a horse to run faster; after World War II, a panoply of pharmacological drugs entered stables, and their purposes grew: to manage pain or treat bleeding or sedate or build muscle mass, not only



Sir Barton, Kentucky Derby, 1919

to speed up a horse but also push it to compete through complications or unfelt pain, or to add strength to an already-powerful yet brittle frame.

“...In the last 110 years there have been incredible changes in the types of drugs and their intended purpose.”

One major divergence comes via the fully-stocked arsenal of medications available to horsemen today, the sight of which would have shocked trainers from another time. Different, too, is that contemporary drugs, based on sound medicine, work: modern pharmacology show that the “hops” popular in stables during the first half of the century – cocaine, strychnine, mercury, morphine – in all probability offer little to no performance-enhancement and likely have deleterious effects. Even alcohol was tried in the early days; a quart of whisky before the race, because if it worked for you than maybe the horse too.

Unlike previous eras, the matter of legality is now hazy. This is the legacy of permissive medication. Medication can be used legally, based on a level each state sets individually, or used illegally by going over that level (what trainers like to call “an overage”); there are drugs like Cobra venom or Erythropoietin which are always illegal, and then there are drugs that occupy a gray area, not legal in spirit but without tests for their existence. The penalties for misconduct differ by state, often case by case. They rarely add up – the fifth violation merits the same punishment as the first. The horse, as evidenced by its abridged career nowadays, is probably worse for the wear.

One of the first doping trials occurred in 1890, in Canada, for the owners George Renwick and Frank Baldwin. According to a paper written by John Gleaves for the British journal “Sport in History,” the owners were let off, but the judge lectured them on dishonest practices at the track and “advised them not to engage in any of the disgraceful tricks so common at races on American soil.”

To “dope” – to stupefy with a drug – could go both ways, to help a horse win or stop him. Doping had an expressed purpose: to make a score on a fixed race. The purses were

miniscule then, and hence the risk of acting on inside information was deemed worth it.

American racing was not even 30 years old before anti-doping rules were passed. The Jockey Club, in 1897, introduced a rule to "put an end to the reprehensible practice of 'doping' horses." Doping, as they defined it, was injecting under the skin of a horse some liquid stimulant or opiate, such as cocaine or morphine. But the rationale offered for reform rarely concerned the health of the horses or the jockeys, but gambling. The men of The Jockey Club were wealthy owners, often wagered large sums, and they wanted fair competition.

A New York Times exposé in 1901 credited "Doc" Ring, a regular on the New Jersey tracks, with originating the practice of injecting stimulants to dope a horse. Rather than accept payment, Ring demanded that the horse's owner place a bet for him. This was a form of protection against claims that he might have stopped a horse if he ran poorly. The Times reported that Ring's concoction was composed of "nitro-glycerine, cocaine, carboic acid, and rose water." Probably harmful, his stimulant later included "strychnine, capsicum, ginger" and other unknown ingredients.

Doping lurked behind every inexplicable event on the track. In 1903, the Times called doping "the scandal of the racing season." Recognizing that for gambling purposes its nature had broadened, officials changed the language in anti-doping statutes from "stimulating" to "affected" the speed of a horse.

The trainers who doped their horses were far from professionals. The Thoroughbred Record, on May 23, 1903, told the story of a good horse named Dr. Riddle. His trainer, William Howell, injected him with "12 grains of cocaine" – which affected his speed but in the wrong way. He lost his nerve so completely that he was afraid to break. That afternoon, he gave up the ghost, a "victim to the wiles of man."

The drugs used were simple then but over time grew in sophistication and application. Hervey noted major changes, writing in 1932: "The latter-day stimulants are much more deleterious than their forerunners of thirty to thirty-five years ago. Moreover, the system of administration was different. Horses were not, at that time, drugged continuously, consistently and

narcotics like morphine and heroin, remained commonplace, and their presence on the backstretch attracted unsavory characters looking for a fix, like a man named "Railroad Red" who served as a guinea pig to test the purity of heroin before it was given to horses. Low doses of narcotics, the thinking went, would take the edge off a skittish horse before its race.

Stories like this gathered weight until the Turf was struck with its most serious blow. For a year, Harry Anslinger, the commissioner of the Federal Bureau of Narcotics, had his agents monitoring strange occurrences at racetrack stables. In 1933, Anslinger pounced: claiming he had evidence of 200 separate incidents of doping nationally; he arrested dozens of owners, trainers and stable hands, accusing them of using heroin and cocaine in violation of federal laws. Inaction was no longer viable – either doping, or the perception of doping, had to be stopped.

France had a saliva test in place for two decades, which after some study was imported. Florida put this into practice and passed a stimulant ban in 1933. Trainers were so opposed that they nearly boycotted Hialeah's then-Florida Derby, which became the Flamingo, until track president Joe Widener spoke to a group of about 150 owners and trainers. "Gentlemen," he told them, "training is no longer a matter of skill. It has become a question of formula. There isn't a man in this room who can hold up his hand and truthfully say he has never stimulated a horse." His challenge was accepted by general laughter, since it was true.

The original saliva test, in which the specimen was crystallized and examined by microscope, was more or less intended for three drugs: morphine, heroin, and strychnine, according to Dr. John McAllister Kater, the original chief scientist of the anticrime Thoroughbred Racing Protective Bureau (TRPB), which opened in 1946. Unhappy with its oversight function, Kater resigned in disgust at the end of 1953. For Life



systematically, each and every time they went to the post. The practice was utilized more specifically upon some occasion when high stakes were being played for – not as an every-day thing."

This condition was tolerated on the turf for 30 years. Caffeine was the most popular stimulant of all the drugs at the time. Harder stuff,

in 1955, he wrote a whistleblower's account on the practice of doping.

The saliva test, Kater claimed, was not able to catch the popular amphetamine Benzedrine, or "bennies," if injected, but the urine test that followed curbed that. Urine testing was simple and cheap to use, but both were necessary, since heroin or morphine often sneaked past this new test. By the 1940s, most tracks were testing saliva and urine. That said, Kater declared in *Life* that "it is still easy to dope a horse and get away it."

When Kater started at the TRPB, he called drug manufacturers who gave him lists of their customers for various drugs that could be used to hop horses. In one instance, the Pitman-Moore Company of Indianapolis was manufacturing an amphetamine sulfate solution under the trade name of Amfetasul, of which 3 cc. could "hop a horse," said Kater. He learned of four veterinarians practicing, respectively, at Santa Anita, Fair Grounds, Agua Caliente, and Bay Meadows and Golden Gate. In only a few months and in dealings with a single manufacturer they had bought enough Amfetasul to hop 520 horses. The company had also refused to fill a huge order from a Florida veterinarian. Though Amfetasul could help treat certain nervous disorders, Kater said, the purchase of more than a bottle or two would seem suspicious.

He gave other examples, such as an oil solution of adrenaline, which was found in the barn of a leading West Coast trainer and was one of the most powerful stimulants around. Combined with Benzedrine, it had a synergistic effect, meaning its combined jolt was greater than the parts. Stimulants are excreted very slowly and wouldn't appear in urine for quite some time, so racing officials had to learn to wait for at least two hours after the race to get a sample.

Kater was studying drugs as American racing was about to make a sharp turn. After World War II, the science of medicine advanced rapidly. Major investment flooded the marketplace of drugs with varied capabilities for use on humans. They were remarkably effective. One such

example was testosterone, which became available to trainers in 1947 and allowed them to add spirit to their geldings. This was effective and safe, but was it doping? Nobody in racing could flatly decide. Testosterone was neither narcotic nor powerful stimulant, but it did tamper with a horse's normal performance. This question was never properly answered.

In the meantime, these drugs were not waiting on shelves gathering dust. Some enterprising veterinarians had to figure out which ones would work in horses.

Alex Harthill filled this role. Harthill, who came onto the track in 1948 and treated more than 25 Derby winners in his career, broke new ground in equine pharmacology. He was always on the lookout for those human drugs – like for kidney, liver, or heart disease – that could

prove effective in horses. Some drugs that Harthill adapted still are not recognized according to one close friend of his. Harthill was an avid reader of human medical journals and, quite the pharmacologist, experimented with drugs in the basement pharmacy inside his office. He was ahead of the curve and on the cutting-edge of science, and for these reasons his epithet – brilliant but controversial – was written half a lifetime before he died, in 2005.

These prescription drugs were so potent that it didn't take much. Barry Irwin, the head of Team Valor International, says he'll never forget a truism Harthill once told him: "Even though a horse is five or seven times larger than humans, the amount of dope needed to have an effect is so small. An amount on the tip of a match would be enough to flick up a horse's nose to get a spectacular result."



Harry Anslinger, Commissioner of the Federal Bureau of Narcotics, fineartamerica.com

The 30 years after World War II were characterized by this type of ground-breaking and, consequently, in-fighting between those in favor of permissive medication – what drugs if any should be permitted and in what doses, how long before a race and who should administer them – and those opposed. Racing jurisdictions couldn't keep up with the hundreds of newly-arriving drugs for which there were no tests. Perhaps the best example is the oft-told story of Harthill giving the diuretic Lasix to Northern Dancer before the 1964 Kentucky Derby. Later in life, Harthill liked to take credit for this pioneering act.

Much room for leeway was afforded. In the 1960s, for instance, highly potent corticosteroids were allowed on race-day and only half the states even tested for cortisone. There was no time to study the effects of the latest drugs, and their proponents seized on them as the answer to year-round racing on horses. A laid-up horse couldn't win the large purses on offer. It was a shoot-first philosophy.

Butazolidin, a non-steroidal anti-inflammatory, was the first drug to reach mass appeal. First synthesized in a Swiss lab in 1946, it was ultimately produced by Kansas City's Jensen-Salsbery Laboratories in 1957. Horsemen loved it. Within three years, Colorado became the first state to allow it – up to noon preceding race-day. Richard Hite, the state



Northern Dancer, Kentucky Derby 1964, Gallery of Champions

racing commissioner, was frank: its horses were "sore-legged" and they had races to fill. Trainers had to report using any medication to the commission veterinarian. "It's sort of a government-of-men-rather-than-law type of a rule," Hite said.

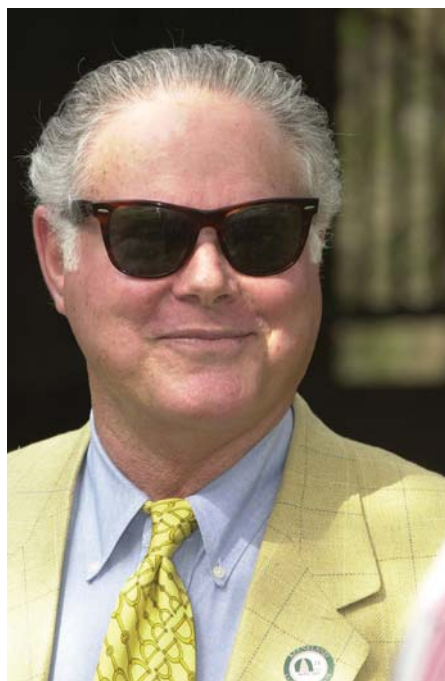
Colorado officials called this a policy of controlled medication. The American Association of Equine Practitioners, in which Harthill was a large figure, came forward with a platform patterned after the Colorado rule. "You are not letting the bars down; you are raising them up," former president Scott Jackson said at one late '60s roundtable. The drugs were already on the backstretch, he said, and some were quite dangerous, and the only way to control them was by regulating their use.

The idea of medication was itself a subtle language shift, and reflected the changing tenor from stimulants or narcotics to substances with more varied purposes. The principal argument against permissive medication was that the horse, given a false sense of well-being, would lose its natural protective instinct to shorten its stride when hurting. But permissive medication won out, and thus began a 40-year current of addition, rather than subtraction, to

the list of acceptable drugs.

Colorado didn't permit medication on the day of the race, but it opened the door slightly. Other states hurried in. Economics played the biggest part – this was big business for veterinarians and racing jurisdictions wanted full fields. Nebraska approved Butazolidin and in late 1970 California became the first major racing state to sanction it. Then Maine, New Mexico, and Illinois, which approved a long list of medications for "supportive therapeutic treatment" before races. Florida and Kentucky followed in 1974, then Ohio and Louisiana. The "48-hour rule" – no medication during that period before a race – was going out the window. In 1974, the owner Fred W. Hooper told The Jockey Club roundtable: "I don't believe that you can control it (medication) once you open up the door."

Maryland became the first state to allow Butazolidin and Lasix on the day of the race, and everyone else followed soon after, except for New Jersey and New York. Integrity for the bettor fell by the wayside; some states kept this information private, and others mandated its inclusion in track programs. And though Ruffian's breakdown in 1975 and an inflammatory 60 Minutes segment in



Barry Irwin, Horsephotos

1979 encouraged some pushback, it didn't last long.

The drugs that escaped detection presented far more trouble. New York, a hold-out on Lasix until 1995, still had its issues. For instance, in the mid-70s, a narcotic painkiller called Sublimaze showed up on its backstretch. It was common in the kits of American medics in Vietnam. Sublimaze gave horses such a feeling of euphoria that they felt like they didn't have legs. In 1979, a test came out, halting its use. By the 1980s, racing introduced a blood test. Saliva was history.

But most times a new drug was detected, racing officials decided not to ban it, but allow it, with minor restrictions. Clenbuterol, the popular bronchodilator marketed as Ventipulmin, is the classic example. Harthill introduced this in the early '80s.

"I can remember him coming back with the first bottle of it – getting it in France or somewhere in Europe," says his close friend and colleague Gary Priest. Priest used it to treat previously-fatal pneumonia in some foals. It was incredibly effective but also had lean muscle mass-building side effects, making it popular among bodybuilders.

"In general, treatments designed to repair a horse's injuries and to alleviate its suffering are now often used to get the animal out onto the track to compete – to force the animal, like some punch-drunk fighter, to make just one more round."

--Greg Ferraro

The Food and Drug Administration didn't approve clenbuterol for use in horses until 1998. So for 15 years, it went undetected, and the trainers fortunate enough to know Harthill, or others who had it, ostensibly benefitted immeasurably. Priest admits, "He didn't always live by the rules. He'd find a source of a drug we

didn't have in the States. He'd bring it in and use it on horses he thought would benefit from the treatment."


Following F.D.A. approval, clenbuterol could be tested for, and there was a wave of positives in California among its leading trainers. Even now, its popularity has few parallels and is a staple in training regimens, breathing problems or not. California regulators recently found clenbuterol in 54 percent of thoroughbreds. Sales in California total at least \$7 million annually.

The response was always to allow more. Harthill was a leading advocate of liberal medication rules and it showed in Kentucky; not long ago, a trainer could instruct a vet to administer any supposedly non-performance enhancing drug, like an anti-inflammatory or diuretic, at any dosage level in any combination up to four hours before a race. State by state, rule books listed hundreds of drugs in various categories that were permitted and at varying doses.

There were few deterrents. So trainers were willing to take their shot: in California, for example, once the state began unannounced testing of TCO₂/milkshaking levels, it was discovered that 20 percent of horses

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exceeded the acceptable level. It's not cheating, the saying goes, if nobody's watching. In the early 1990s, corticosteroids proliferated, flipping its stated purpose – with rest they offer relief, but with exercise they are deleterious – on its head. In 1992, Dr. Greg Ferraro voiced his opposition to the practice in the North American Review. “In general, treatments designed to repair a horse's injuries and to alleviate its suffering are now often used to get the animal out onto the track to compete – to force the animal, like some punch-drunk fighter, to make just one more round.”

Ferraro estimated that close to 70 percent of racehorses had been “tapped” at some points in their careers. Twenty years later, as

illustrated by the oft-discussed Aqueduct task force report on that track's 2011-12 fatalities, the picture looks unchanged. Doping, in a conventional sense, seemed unnecessary with so many legal drugs to choose from.

Of course, the agents of reform have enjoyed victories. Abolishing anabolic steroids, after the notoriety of Big Brown's Triple Crown chase in 2008, was significant. Ten years ago, the Racing Medication and Testing Consortium came up with a list of about 50 medications which were acceptable. Most recently, the Mid-Atlantic consortium which is seeking uniformity in that region had whittled its list to 24.

But drugs are so intertwined in racing that removing them is like pulling a thread from a sweater and the whole garment unraveling. This winter, New York strengthened its medication policy, extending withdrawal times for corticosteroids and clenbuterol; in turn, field size at Aqueduct dropped and the track decided to cut six mid-week cards.

Revealingly, a year before the Mid-Atlantic region made its announcement, accounts of Demorphin surfaced, a painkiller 40 times stronger than morphine and derived in its natural state from South American frog secretions. Thirty horses, both thoroughbreds and quarter horses, tested positive across four different states, exposing an interconnected, interstate network of doping. Initial shock gave way to acceptance; after all, anyone familiar with the history of drugs in American racing would have seen it as time-honored.

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Dr. Alex Harthill, Horsephotos.com