RISK & SAFETY FACTORS IN FLAT & STEEPLECHASE RACING ASSOCIATED WITH ALL BITTED BRIDLES, COMPARED WITH THE FORECASTED RISK OF USING THE CROSSOVER BITLESS BRIDLE[1]

ITEM	BIT	CROSSOVER BITLESS BRIDLE
PAIN	Severe: Bone spur formation on the bars of the mouth is common. Trigeminal neuralgia (headshaking) is also a pronounced feature	Painless: It is virtually impossible to hurt a horse with this bridle
BRIDLING	Often resented & difficult	Willingly drops head into bridle
FITTING	A frequent source of problems and, therefore, increased risk. The 'correct fitting' of a bit is an oxymoron.	Straightforward guidelines makes fitting both simple and easy
NEED FOR TONGUE-TIE	Frequent to the point of routine	Not required
NEED FOR DROPPED NOSEBANDS etc.,)	Frequently considered necessary due to evasion of bit	Not required
PADDOCK PROBLEMS (rearing, bucking, balking, headshaking)	An ever-present source of accidents. A somersault can be fatal to horse and jockey but even headshaking results in a jockey losing his front teeth	Unlikely
EAGERNESS TO RACE	Sometimes so lacking that starting gate delays occur	Judging from attitude in other disciplines, most unlikely
REIN-AID COMMUNICATION	Capricious & liable to be blocked by frequent evasion of the bit, e.g, bit taken between teeth, or placed under tongue, or the horse bolts	Comprehensive communication and control that is not at risk of being withdrawn by evasion on the part of the horse
FEAR	Horrendous; panic attacks likely	None
EXERCISE PHYSIOLOGY	Incompatible with the dictates of evolution	Compatible & natural
NERVOUSNESS	Marked & dangerous because of the infliction of pain	Noticeable calming effect
ABILITY TO BREATH	Frequently obstructed. Tongue behind bit elevates soft palate and obstructs airway	Unimpeded
ONSET OF FATIGUE	Premature, due to pain and limitation of oxygen	Consistent with performance. More oxygen = more energy
EFFECT ON STRIDE	Stride shortened. Horse more liable to stumble due to pain &/or interference with locomotor/respiratory coupling	Lengthens. Risk of stumbling reduced. If stumbling should occur, recovery facilitated and a fall less likely
EFFECT ON SPEED	Slows	Quickens
EFFECT ON JUMPING	Frequent cause of accidents	Horses jump more willingly and with greater safety

[1] "The Bitless Bridle" The Bitless Bridle Inc., 2020 South Queen Street, York PA 17403 USA. Telephone (717) 812 1598 Online at www.bitlessbridle.com

ITEM	BIT	CROSSOVER BITLESS BRIDLE
PERFORMANCE	Impeded. A horse that is frightened, in pain, and unable to breathe freely cannot give of its best and is an accident waiting to happen	Enhanced. A horse that is free of pain & able to breathe and stride in synchrony is less likely to have an accident
STEERING	Often leaves much to be desired. Bit pain causes lugging.	Superior steering is a quickly noted feature in all disciplines
STOPPING	A bit does not stop a bolting horse. On the contrary, it is a frequent cause of a horse bolting	Riders from expert to novice in all disciplines report 'better brakes'
BLEEDING	Likelihood increased. EIPH is caused by airway obstruction. Racehorses have died in action from severe asphyxia-induced pulmonary edema.	Likelihood decreased; no airway obstruction
BREAKDOWNS	The risk of a false step is enhanced by premature fatigue, pain, hypoxia	Likelihood reduced
LONG-BONE FRACTURES	Fatigue = falls; falls = fractures	Likelihood reduced
DDSP	An all too familiar problem, causing sudden loss of speed and perhaps accidents associated with falling	Does not occur in absence of bit
RECURRENT LARYNGEAL NEUROPATHY (RLN)	Adds to the airway obstruction caused by this common neurological scourge, and increases the chances of accidents associated with asphyxia	Horses with RLN exhibit less inspiratory stridor when the bit is removed
BREAKAGE OF BIT	An occasional hazard	Hazard eliminated
DENTAL PROBLEMS	A common source of added pain. T he presence of wolf teeth and canine teeth make use of a bit hazardous	Dental defects and abnormalities of the jaw are largely of no consequence
SORE MOUTHS	Common source of added pain	Eliminated
THIGMOTAXIS[2]	Pain often stimulates positive thigmotaxis (pulling, leaning on the bit, bolting)	Mode of action is painless and triggers negative thigmotaxis (helpful in both steering and stopping)
GENERAL EQUITATION	The bit is the cause of 120 behavioral problems for the horse (and rider) & a potent source of escalating risk and accidents	Riding rendered simpler and safer. Even the most heavy-handed jockey is unlikely to trigger an accident
RISK SUMMARY	**ACCIDENTS INCREASED**	**ACCIDENTS REDUCED**

The above tabulation on safety issues represents, in précis format, Dr.Cook's opinion based on many years of research. The theoretical evidence in support of the above statements can be read in the articles cited in the bibliography already provided. For a convenient overview of the

[2] The word means reflex movement in response to touch (tactile, pressure or pain). This is a fundamental and primitive property of all animals from the very small to the very large. As it relates to the horse, it seems likely that negative thigmotaxis is movement away from superficial and painless touch, whereas positive thigmotaxis is movement towards deep and painful touch.

research results, members of the Veterinary Committee are referred to Dr. Cook's book, "Metal in the Mouth: The Abusive Effects of Bitted Bridles), a copy of which has been given to Dr. Peter Webbon. The practical evidence in support of the crossover bitless bridle can be seen by scanning five year's collection of Users' Comments, available online at **www.bitlessbridle.com**.

Although the crossover bitless bridle is indisputably a bitless bridle it bears no other resemblance to the pre-existing and traditional bitless bridles, i.e., the hackamores, bosals, and sidepulls. All these traditional bitless bridles are pain-based in their mechanism, whereas the crossover bitless bridle is painless and works on an entirely new and different concept. The crossover bitless bridle provides, as it were, full service communication, whereas the traditional bitless bridles all have limitations in their ability to provide for rider/horse communication. The hackamores and bosals, for example, make some provision for stopping (though with similar inherent problems to the bit method) but are weak on steering, whereas the sidepulls provide for steering but are weak on stopping. Furthermore, whereas the crossover bitless bridle is applicable to all disciplines, the traditional bitless bridles are not, having been developed initially to serve the needs of the Western riding tradition. A more comprehensive differentiation of the crossover bitless bridle from the traditional bitless bridles is provided in an accompanying article by the same author, "Traditional (pain-based) bitless bridles."