

Tips on Training.

Taken from Cortis, Hillier, Blaikie, Keen, Prince, Stall and other good authorities.

It is injudicious for any one under 18 years to do much racing.

Over-training is worse than no training at all.

Never take violent exercise immediately after a meal.

Hard road riding is not conducive to speed. It produces close, heavy muscle, unsuitable for path work.

The muscles should be limber and elastic, in order to stand the rapid contraction and expansion that is required of them.

It is all-important to ride with the same *reach* and the same *throw* of crank, whether on the road or on the path, as the feet thereby get accustomed to work in one circle, and are much less liable to slip off the pedals when going at full speed.

Remember a race is as often won by the head as with the legs, and to lose your head is often to lose the race.

Drinking at various intervals of the day should be rigorously abstained from.

The object of dieting is not to starve or stint, but to eat what can be easily digested, and is not conducive to the excessive accumulation of flesh.

The best racing shoe is a regular professional pedestrian or running shoe, laced to the toe. The lacing may be adjusted to vary with the feet, insuring a sure fit when you want to use them.

In using rat-trap pedals, the soles of the shoes should be provided with slots or blocks attached to fit on the pedal bars and keep the foot steady.

Some racers prefer the rubber bar pedal, in which case the sole should be very thin, allowing the foot to grip the bars, as it were.

Grip pedals are becoming a necessity, and we advise our racers to try them.

The largest size machine which should be ridden in a race is one on which the rider may raise himself clear from the saddle with pedals at the lowest point. The smallest one should allow the leg to be just straightened, with toe level to heel.

You want a flat, hard, thin saddle for racing and very little spring; and you don't want much spring on the roads. Throw most of the weight on the pedals.—*John Keen.*

Many falls have occurred in consequence of a competitor striking the step of his leader. A racing machine should never have a step.

Use moderation, and don't rush into hard practice at once. Make haste slowly.

The perfection of preparatory training is plenty of *pedestrianism*. A good pedestrian will make a good racer. This rule does not hold for *runners* generally, but applies especially, and almost invariably, to *walkers*.

Walk one special mile a day in from eight to ten minutes, taking pains to cut the pace daily. Walk daily, from three to fifteen miles at speed, say, with good ground, at the rate of five miles per hour; twelve minutes to the mile. This speed can be attained by practice, and finally held for the longest distance mentioned, over everything, up hill and down dale. This practice is invaluable, as being accessible through the winter, preparatory to getting out the machine with spring.

The upright position in racing is the most graceful; but the most successful racing men are the most awkward looking riders, especially when doing a spurt.

The position must be such as to allow full play to the lungs. This is accomplished by grasping the handles overhead and bending the elbows out, at the same time throwing the weight forward and seemingly pressing backward on the handle bar.

This last is an important tip, as it rests the back, loins, and shoulders, by placing the

weight on the bar, and at the same time takes just so much weight, and consequent drag, from the back wheel and places it in the best position on the machine.

The handle bar should be at least twenty-six inches long, but twenty-eight inches is better for anything over a fifty-four inch wheel.

In no case should track work be indulged in within an hour and a half after meal.

Should a man actually have no time for track work in preparing for a race, let him give strict attention to his diet alone, and his chances will still be good for carrying off the prize.

Let no one who has heart disease, or any other organic trouble, enter the racing lists. Although such a one might with impunity take long and severe rides or tours, for many years *the excitement of the trial, combined with the exertion*, will in most cases result in injuries, if not fatally.

The general predilection is in favor of a short throw; but, for myself, I prefer to have it as long as possible, without giving the feet any tendency to fly off the pedals, and causing the wheels to wobble unduly, when spurring at topmost speed. I don't think it should ever be less than four and three fourths for a fifty-six inch machine, and a shade longer for anything higher.—*Cortis.*

This is short as ever used in America. Our racers use about five-inch generally, except on a small wheel, when four and a half is sometimes used.

Some care must be observed in not reducing the weight too speedily or injudiciously, as it is apt to enervate and weaken the system.

In a hard race, where the wind seems almost gone, relief may sometimes be obtained by bending the head back, thereby opening the throat and increasing its capacity for receiving and delivering the breath. Some small thing, such as a quill, is frequently carried in the mouth for the purpose of inducing the saliva to flow more freely, which prevents the dry and choking sensation frequently felt in the throat and mouth during severe exercise. A small, hard substance held under the tongue will accelerate the action of the glands, or the tongue kept in motion between the lips will answer the same purpose. The last method is the very safest, as it is impossible to swallow the tongue in case of accident.

One twenty minutes before the race is called, the rider should be well rubbed, first with a coarse towel and then by hand, to induce circulation and limber and relax the muscles. Nothing makes the muscles more elastic than heat. Great care should be taken not to get chilled.

The object of dieting is not to starve or even stint anything that is easily digested and is not conducive to the excessive accumulation of flesh; therefore, all kinds of vegetables containing a large quantity of starch or saccharine matter must be either avoided or partaken of sparingly, also quantities of water. Good, new cooked meats—beef and mutton preferred—are to be considered the staple articles, with eggs, either soft-boiled or dropped, on toast (dry) soups and fish; light vegetables, such as lettuce and celery. Potatoes should be baked only, and not more than one or two a day indulged in. Butter in quantities should be avoided, although it is by no means necessary to discard it entirely.

New bread must not be eaten; use the homemade article, and let it be at least two days old.

The use of good ripe fruit in moderation, in the morning just before breakfast, cannot be recommended too highly, as it serves all the purposes of physic, without any of the evil effects of the latter. Oranges, figs and grapes are the best fruits for this purpose. They act as a relish, and tend to keep one from getting tired of the limited diet of a man in training.

If you are well trained you will not need anything to moisten the mouth except in very long races, and then don't suck a lemon, as it will turn your stomach sour.

A good lemonade, drank without ice after the finish, is very grateful and beneficial.

A man will succeed better in athletics who totally abstains from all liquors, even to light beers, ales or wines. Tobacco must be shunned entirely, and plenty of rest must be taken after sufficient work being done to insure sound sleep.

Early rising is a delusion and a snare. Get up when you wake and do your exercising during the afternoon, when the muscles have settled in place and everything is working smoothly.

In the non-riding season, plenty of pedestrianism, as before mentioned, interspersed with such particular exercises as mentioned below, will keep a man in first-rate order till the opening of the season.

Muscular exercises flushes the part engaged in it, and so depletes the brain.

One of the quickest known ways of dispelling a headache is to give some of the muscles a little hard, sharp work to do.

A good house exercise is to stand with the hands on something about the height of the waist, and jump from one foot to the other, quickening the movement and imitating the motion of the pedals as much as possible.

To develop the leg below the knee—Stand erect, with head high, chest out, and shoulders down, keeping the knees well sprung back, having the feet about three inches apart, with the toes turned slightly outward. Now, slowly raise the heels until they are high off the floor, and the whole weight rests on the soles and toes. Now drop slowly down. Repeat fifty times. Increase by degrees. Vary by holding a dumb-bell.

Another way: Stand erect as before. Start off at an ordinary pace of walk. Just as the foot is about to leave the ground, press hard with the soles and toes. Keep on as far as possible and increase distance by degrees.

Other ways: Run on the toes. Hop on one foot. Jumping. Walk up hill on the toes.

To develop the muscle running down along the outer side of the shinbone.—Stoop down as low as possible, the feet being but a few inches apart, and, the heels never being allowed to rise off the floor, lift a weight from the ground. Stand on one foot, first holding the other clear of the floor, and then draw it up as near as possible to the front of its own ankle; then open it as wide as possible. Walk on the heels, with the toes drawn up high.

Work for the front thigh.—Stand erect, with the head and chest high, and the feet about six inches apart. Bend the knees till the head has dropped vertically six inches. Rise to the perpendicular. Repeat. Stand as before. Stoop lower. Vary by holding dumb-bells.

Other ways: Hold one foot far out, either front or back. Stoop on the other foot. Frequently stooping as low as possible, and raising again, first without weights, and then with them.

Fast walking and running strengthens the legs. Slow walking is of little or no avail.

Work for the under thigh.—Stand upright. Touch the floor with the fingers, with knees unbent. Fasten a weight to the ankle, raise the foot as high up, backward and outward, as possible. Repeat. Run with one foot thrown high behind.

Work for the sides of the waist—Hop straight ahead on one foot, then on the other. Try till you can cover half a mile. Walk on a railroad track, using balance pole.

Work for the abdominal muscles.—Lie on the back. Take a full breath. Draw the feet upward, keeping the knees unbent, until the legs are vertical. Lower them slowly. Repeat till tired. Then keep the legs down and draw the body up. Sit on one of a pair of parallel bars, place the feet under the other. Drop the body back till it is horizontal.