



RST / Turbo Studio FAQ #04

Will riding on Turbo Studio's Computrainers damage my bike's frame?

This question comes up every so often, and it's one that many seem all too quick to answer with anecdote and misinformation typical in the world of bicycle training. Nevertheless it's a reasonable question as nobody wants to do anything to damage their pride and joy, especially now days with the common use of lighter weight carbon fibre and composite frame materials.

Let me answer this one straight out: No. You won't.

But of course that answer assumes a few things.

A well built frame in good shape won't be damaged by riding on Turbo Studio's Computrainers, even with very hard efforts. If any bike frame is so fragile as to be susceptible to such damage, or it is already damaged, then perhaps further damage may happen. I would suggest such a frame is wholly unsuitable for a rider to train and race on the roads as well.

You may damage your frame if you do something ill advised. Like:

- clamp it incorrectly (at Turbo Studio we mount and remove your bike for you);
- use an inappropriate rear wheel skewer (Turbo Studio provides suitable skewers);
- lose control while performing a maximal sprint effort (Turbo Studio's Power Sessions do not require such efforts and they are against Winter Series race rules); or
- riding a frame unsuitable for a rider of your size and power. Many frames have a recommended maximum rider weight limit.

The stresses placed on a frame are far greater when training and racing on the roads than when riding an indoor trainer.

At Turbo Studio you'll never need to brake hard (or brake at all), nor ride on rough roads, or hit potholes, bumps, road seams, manhole covers or even rocks and other rubbish. You won't ever need to do innumerable standing starts (like you do at every intersection/red traffic light on Sydney's busy roads) and which are far more stressful on your bike than riding the Computrainer.

There's no need to jump curbs or bunny hop, and the likelihood of a crash in local racing or group ride is way, way higher than it ever will be riding at Turbo Studio. You won't get caught in foul weather, need to ride in the dark or have that lousy sticky horrible tree sap attaching itself to your frame either.

Sweat can cause corrosion to some frame materials over the longer haul, although carbon fibre is the one frame material unaffected by this. This is one of the reasons why at Turbo Studio we ensure excellent cooling of riders with the use of high velocity air fans which significantly reduces the amount of sweat hitting the bike. We also provide a clean towel for each rider to help keep the sweat away from their precious steed.

On some trainers, rear tyres can wear quickly, although the Computrainer's roller is very good in this regard and my own tyre (a Vredestein Fortezza – quite a soft tyre) is holding up very well considering I do three or more Turbo Studio sessions per week. Mind you there is no glass, nails or iron filings waiting to cause a puncture at Turbo Studio.

Nevertheless, rather than rely on what I or the good folks at Racermate (the manufacturers of Computrainer) might say on the subject, here is the same question answered in April 2009 by Lennard Zinn, chief technical writer for VeloNews:

Dear Lennard,

I have a new, nice, carbon framed bike that I am racing on this year. Is there any reason to think that using it on an indoor trainer (an old Blackburn air resistance model) would cause any damage to the bike? I am mounting it to the trainer only via my trainer rear wheel, which is a Shimano 105 hub/Mavic CXP-21 rim and trainer tire. On this setup I use a skewer that fits well w/ the trainer.

Basically, is there any reason to worry about damaging a frame by being hooked up to a trainer for workouts? I use the trainer setup for race warmup and also for indoor workouts when I don't have time/weather to get outside.

Jay

Dear Jay,

I've answered this in the past, but I continually receive this same question, year in and year out, so I'll continue to answer it periodically.

While the stresses are different on a bike constrained to a trainer than on the road, they are nonetheless far smaller than the kinds of stresses commonly encountered when riding on the road. So, no, you need not worry about damaging it by riding it on a trainer. If your bike can't handle the abuse of a trainer, you sure don't want to ride it on the road!

Of course, you will wear out your rear tire rapidly and need to replace that before blowing it on the road. Furthermore, the danger of corrosion from sweating on a bike on a trainer is an issue with a steel, aluminum or magnesium frame, but it's generally not with carbon.

Lennard

Technical writer Lennard Zinn is a frame builder (www.zinncycles.com), a former U.S. national team rider and author of numerous books on bikes and bike maintenance including the pair of successful maintenance guides "[Zinn and the Art of Mountain Bike Maintenance](#)" – now available also on [DVD](#), and "[Zinn and the Art of Road Bike Maintenance](#)," as well as "[Zinn and the Art of Triathlon Bikes](#)" and "[Zinn's Cycling Primer: Maintenance Tips and Skill Building for Cyclists](#)."

Reference:

http://velonews.competitor.com/2009/04/bikes-tech/tech-guru-lennard-zinn-takes-reader-questions-on-air-compressors-srms-and-sweaty-workouts_90568#ixzz0nsViSz9Y

Alex Simmons
Performance Director, RST Professional Training Systems
Hooper Lane Turbo Studio

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