

It's All About Speed... *and then some!*

A treadmill for skaters will allow for skating stride training *on a machine [with skates on]* rather than being on real ice. Since stride mechanics is an exacting science, teaching it should replicate, as much as possible skating on real ice – in other words ‘training while the skating track is level.’ This allows the student to later apply their new found knowledge effectively, as trained – on the only ice we know – *flat* ice.

It is imperative that your treadmill can move faster than your students – remember that as the kids improve, they become stronger, more efficient and faster. Often you will find treadmill owners/trainers compensating for a ‘slow track’ by inclining the skating deck forcing the students to essentially skate uphill in an effort to slow them to the machines output. This is bad.

Some trainers get creative with the use of medicine balls and weights, but that only goes to reduce stride efficiency. These tactics do, however, achieve their general intended goal of slowing kids down enough so they don’t over-skate slower tracks. In the broadest sense of the word these may be considered ‘training’ techniques, but really only for cardio and core – not stride. In fact these methods generally compact the stride, making it more choppy and “running-like.”

Ice is Flat – Always

If you were a cross country coach training long distance runners, you would generally not machine train on more than a 3 degree incline because it would be detrimental to a runner’s biomechanics. In this instance incline training needs only to be done to prepare runners for hills. So that makes sense. However in skating, the surface is flat - always; so there is no need to train to “power through a hill” by training on an incline, which often happens.

Incline Training: Does it Make Sense?

Some skating coaches suggest you can use up to a 10 degree incline to improve acceleration, but remember this comes at the cost of proper stride mechanics and muscle balancing. The greater the angle you skate at, the more you must alter your normal stride pattern and body posture, which becomes detrimental to the performance of the actual athletic movement in a game situation.

And doing any incline training for *prolonged periods of time* won’t allow legs to recuperate or heal from the anaerobic burn they are susceptible to. Not to mention that the skater must now recalibrate muscle memory to compensate for a flat surface when on ice later.

On the positive side, training on minimal inclines may be beneficial for body composition [burning fat] as your energy requirements are low enough to utilize free fatty acids as a fuel source; but this can be equally achieved on a regular running treadmill.

Understand Your Goals

Training effectively on any treadmill really depends on what your overall goal is:

1. For burning more calories [but fewer from fat]: use faster speeds at a higher inclines
2. For improved cardiovascular [heart, lungs but not necessarily body composition changes]: use faster speeds with less incline
3. For body composition: use slower speeds at higher inclines
4. For stride mechanics: use appropriate speeds set at zero elevation

Over all, trainers should try to maximize skater's benefits and training time: raise the deck for composition, cardiovascular or calories - not for stride mechanics. And do it by choice, not due a speed limitation the skating treadmill has.

So, Speed is King

That is why the entire argument on skating treadmills comes down to speed, not incline. If the machine goes fast enough, the only creativity that trainers/coaches need to bring is in dissecting the exacting science of stride mechanics.

Look for a skating treadmill with an ability of speeds that will challenge your students – but make sure it is a calibrated speed [vs. claimed]. If need be, test its speed it by running on it to gage its accuracy. Once you have the speed, it will give skating coaches options and will allow them the opportunity to properly engage *everyone* from learner's right through to NHL prospects.

Sources

- Essentials of Strength and Conditioning by Baechle and Earle, published by Human Kinetics
- Training for Speed, Agility, and Quickness by Brown and Ferrigno, published by Human Kinetics
- Sports Speed, by George Dintiman and Bob Ward, published by Human Kinetics

Coaches and trainers are like any other specialist. Each has a unique vision of their expertise and how to educate others. The more information we are all exposed to, the more successful we can all become.

Sincerely,

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Ray Bakker
President

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