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# How To Make Skateboard Wheels Go Faster

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## INTRODUCTION: THE QUEST FOR GREATER SPEED ON FOUR WHEELS

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Every skateboarder, from the sidewalk cruiser to the downhill racer, shares a common desire: the thrill of going faster. That feeling of the wind rushing past as the pavement flows smoothly beneath you is addictive. But what do you do when your board feels sluggish, or you simply want to push your limits? The answer lies not in pushing harder, but in optimizing your equipment. The question of **how to make skateboard wheels go faster** is a multifaceted one, involving physics, maintenance, and a touch of mechanical savvy. This comprehensive guide will explore every angle, from the microscopic friction inside your bearings to the macroscopic choice of wheel material. Whether you are a seasoned skater or a curious beginner, understanding these principles will unlock a new level of performance and enjoyment from your board.

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## THE FOUNDATION OF SPEED: YOUR BEARINGS

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Before you even consider changing your wheels, you must address the engine of your wheel rotation: the bearings. Bearings

are the small metal rings that sit inside your wheels, allowing them to spin around the axle. The speed of your skateboard is almost entirely dependent on how freely these bearings can rotate. If your bearings are dirty, rusty, or poorly lubricated, no amount of expensive wheels will make you fast. Therefore, the most impactful steps in **how to make skateboard wheels go faster** involve bearing care.

## Cleaning Your Bearings for Optimal Performance

Dirt, dust, and grime are the enemies of speed. Over time, these particles accumulate inside your bearings, acting as a brake. To restore lost speed, a thorough cleaning is essential. Here is a step-by-step process for deep cleaning your bearings:

1. **Remove the Bearings:** Use a skate tool to remove the wheel nut and washer. Gently press on one side of the bearing to pop it out, then remove the spacer (if present) and push out the other bearing. Be careful not to lose the small axle nuts.
2. **Remove the Shields:** Most bearings have a rubber or

metal shield on one or both sides. Use a pin or a small flathead screwdriver to carefully pry off the shield. Work slowly to avoid bending it. For sealed bearings, this step is skipped, but they can be cleaned less frequently.

3. **Soak in a Cleaning Solution:** Place the bearings in a small, sealable jar. Fill it with a bearing cleaning solution. Acetone, isopropyl alcohol (90% or higher), or a specialized skate bearing cleaner are all effective. Never use water, as it promotes rust. Shake the jar vigorously for a few minutes. Let them soak for at least 30 minutes, shaking periodically.
4. **Agitate and Rinse:** After soaking, the solvent will likely be dirty. Pour it out and add fresh solution. Shake again. Repeat this process until the solution remains clear after shaking. This indicates most of the dirt has been removed.
5. **Dry Thoroughly:** Remove the bearings and place them on a clean, lint-free cloth. Let them air dry completely. You can also use a hairdryer on a **cool** setting to speed this up. It is crucial that no solvent remains before lubrication.

## The Critical Step: Lubrication

Once your bearings are clean and dry, they will spin freely but very loudly and will wear out quickly without lubrication. The right lubricant reduces friction while protecting against dirt. For maximum speed, a thin synthetic oil is ideal. Apply one drop of oil

to each bearing ball. Spin the bearing to distribute the oil. Some skaters prefer a light grease, which lasts longer and offers more protection against the elements, but it creates slightly more initial resistance. A single drop of high-quality speed oil is the best answer for **how to make skateboard wheels go faster** through bearing lubrication. After oiling, replace the shields and gently spin the wheel. It should spin almost silently for a long time.

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### CHOOSING THE RIGHT WHEEL MATERIAL AND HARDNESS

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The material and hardness of your wheels are paramount to speed. Wheels are made from polyurethane (PU), and the formulation of this plastic directly affects how energy is transferred to the ground. A common misconception is that all wheels are the same. In reality, the chemical composition is a complex recipe that defines a wheel's performance.

## Hardness (Durometer) and Speed

The hardness of a skateboard wheel is measured on a durometer scale, typically using the 'A' scale (e.g., 78a to 101a). The relationship between hardness and speed is not linear. You might think a rock-hard wheel is fastest, but that is only true on a perfectly smooth surface. Here is the breakdown:

- **Soft Wheels (78a - 87a):** These wheels are designed for cruising on rough asphalt or sidewalks. They offer excellent grip and a smooth ride, absorbing vibrations. However, they are slower on smooth surfaces because they deform more, creating higher rolling resistance. They are not ideal for pure speed on a skatepark.
- **Medium Wheels (88a - 95a):** This is a versatile range. They are good for street skating, skateparks, and beginner downhill. They offer a balance of grip, slide, and speed. They are a solid all-around choice.
- **Hard Wheels (96a - 101a+):** These are the speed demons. They are extremely hard and have very low rolling resistance on smooth surfaces like concrete, wood, or smooth asphalt. They transfer energy directly into forward motion. The trade-off is that they lose grip easily (which is desirable for slides) and transmit every crack and pebble into a jarring ride. For maximum speed on a smooth, prepared surface, hard wheels are your best bet.

If you are asking **how to make skateboard wheels go faster** on a smooth skatepark, invest in a set of 99a or 101a wheels. If your cruising involves city streets, a mid-range 85a to 90a wheel will be faster overall due to better vibration absorption and contact with the ground.

## Wheel Profile and Shape

The shape of the wheel also influences speed. The width and contact patch (the part of the wheel touching the ground) are key

factors.

- **Narrow Wheels vs. Wide Wheels:** A narrower wheel has less contact with the ground, resulting in lower friction. This can lead to higher top speeds. However, they are less stable and prone to sliding out. Wide wheels have a larger contact patch, offering more grip and stability, which is crucial for high-speed turning but creates more friction.
- **Square Edges vs. Rounded Edges:** Wheels with a sharp, square edge offer maximum grip because they dig into the pavement. This is excellent for carving at speed but creates more rolling resistance. Rounded or bevelled edges have less rolling resistance and are often preferred for pure speed runs and slides.
- **Core Size and Spokes:** Modern wheels often feature a large, rigid urethane core. This reduces the deforming weight of the urethane, making the wheel faster. A smaller core means more urethane, which can be slower but offers a smoother ride.

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## THE IMPORTANCE OF HIGH-SPEED LUBRICANT

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While we discussed lubricant earlier, it is worth expanding on the **type** of lubricant. This is a critical detail in **how to make skateboard wheels go faster** on a chemical level. The standard white lithium grease or thick tube grease that comes with many bearing sets is great for protection but terrible for speed. To achieve maximum velocity, you need a **low-viscosity lubricant**.

There are dedicated skateboard bearing speed oils available, often in small bottles with a precision dropper. These oils are engineered to have extremely low viscosity, meaning they flow easily and create minimal resistance between the bearing balls and races. They often contain anti-wear additives and are designed to withstand high RPMs without breaking down. While they require more frequent reapplication than grease (every few sessions), they are the single greatest secret for unlocking the top-end speed of your bearings. Applying speed oil is a delicate process: too much and you create hydraulic drag; too little and you risk metal-on-metal contact. One drop per bearing, followed by spinning to distribute, is the golden rule.

## Avoiding Common Lubrication Mistakes

- **Never use WD-40:** WD-40 is a solvent and water displacer, not a lubricant. It will clean your bearings temporarily but will quickly dry out, leaving them bone dry and prone to rust. It is a one-way ticket to slow wheels.
- **Do not over-lubricate:** Too much oil or grease creates internal friction. Your bearings will spin slower and attract more dirt.
- **Keep the outside clean:** Wipe any excess lubricant from the bearing shield and wheel hub. A sticky bearing attracts grit that will ruin your speed.

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## WHEEL MAINTENANCE AND PRESSURE

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It is not just the bearings and the urethane that matter; the mechanical assembly of the wheel on the truck plays a huge role. A common oversight in the pursuit of speed is the tightness of the axle nut. This is a simple but often misunderstood variable in **how to make skateboard wheels go faster**.

## The Axle Nut Torque

The axle nut should be tightened just enough to eliminate side-to-side play (slop) of the wheel on the axle, but not so tight that it compresses the bearings. If you tighten the nut down hard, it will pinch the inner race of the bearings, compressing them against the spacer or truck axle. This crushes the bearing balls and dramatically increases friction. The wheel will spin slowly and will sound like a grinding noise. The correct torque is when the wheel spins freely with a gentle flick but has no lateral wobble. This is often called a "finger-tight" plus a quarter turn. Learn to feel this. A wheel that is too tight will never be fast.

## Checking for Flat Spots

If you have slid your board a lot, your wheels may have developed "flat spots." These are areas where the wheel has worn down unevenly, creating a flattened surface. When a wheel with a flat spot rolls, it will vibrate and lose speed due to the uneven contact. The only solution is to rotate your wheels periodically (which can even out minor wear) or replace them if

they are severely flat. A perfectly round wheel is essential for maintaining velocity.

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### WHEEL SIZE AND SPEED

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The diameter of your wheel also plays a role. Larger wheels have a larger circumference, meaning for every rotation, they travel a greater distance. This gives them a higher potential top speed compared to smaller wheels, all else being equal. However, larger wheels are heavier and require more energy to accelerate. For a pure speed run, a larger wheel (55-60mm for standard, or 70mm+ for longboards) can maintain speed better once rolling. For technical street skating, a standard 50-55mm wheel is standard, as it accelerates quickly. If your primary goal is maintaining top-end velocity, consider moving up in diameter.

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### THE ROLE OF THE SKATEBOARD SETUP

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Interestingly, the speed of your wheels is also influenced by the rest of your setup. A board that is too loose or too tight can rob you of speed. Here's how:

- **Truck Tightness:** Overly loose trucks will wobble at high speed, causing instability and forcing you to slow down. Overly tight trucks won't turn efficiently, requiring you to pick up the board more often. Find a balance that allows for stable carving at speed.
- **Board Flex:** A board that is too flexible will absorb some of your pushing energy, making you work harder to maintain speed. A stiffer deck is more efficient for speed purposes.
- **Riser Pads:** Using shock-absorbing riser pads between the board and the truck can reduce vibration transfer to your feet, allowing you to ride longer without fatigue. They also prevent wheel bite, allowing for harder carving without sacrificing speed.

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### ADVANCED TECHNIQUES: BREAKING IN AND SKATING STYLE

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Even with perfect equipment, your skating style matters. Learning to "pump