

Mountain bike: Full suspension vs. front suspension

By Royce Radcliffe

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Suspension in bikes exists for the same reason as suspension in cars: to protect the rider from the jarring effects of traveling over rough terrain. Obviously due to the fact that there is much less mass on a bike and thus less separating you from the terrain bike suspension will never be completely effective in terms of shielding you from shakiness and occasional rough feelings of impact.

Suspension also increases safety by attempting to keep the [tires](#) on the ground at all times. All of the

normal problems associated with biking are compounded for the mountain biker and suspension is no different.

No suspension is perfect but some are better than others. The two main categories of [bike](#) suspension are front and full suspension. The terms are fairly self explanatory. Suffice to say that front suspension bikes only have suspension in the front fork whereas full suspension bikes have some in the rear as well.

In the early nineties [mountain bikes](#) started to be sold equipped with front suspension. This made life much easier on mountain bikers for obvious reasons. Replacing the rigid fork with a front suspension fork decreased the usual jarring on rider's arms to an enormous degree. In this day and age almost all [mountain bikes](#) have full suspension. This gives one not only more control over their ride than a front suspension bike but greater comfort as well. The short answer is to just get a full suspension bike.

The only real advantage a front suspension bike has is in climbing uphill. Rear suspension can greatly impede uphill biking and make the effort take twice as much energy. The rear [tire](#) transfers torque to the pivot system, adding pressure to the whole system when enough force is exerted. With a rear shock absorber in place everything compresses, thus making pedaling far less efficient and more strenuous. This is called "bobbing".

Many mountain bikers in the past have chosen front suspension [bikes](#) for this reason, figuring that the main benefits are covered by front suspension anyway. Even to this day most mountain bikers use front suspension bikes. This is due to the aforementioned reason as well as to the fact that these bikes are often lighter and much cheaper than full suspension bikes. The drawback is that in rough terrain the tire will come into contact with the ground less, resulting in less control and comfort.

These days many full suspension bikes all but eliminate the negatives that existed in earlier models. They are lighter and most of them lock out the rear suspension when a rider is going uphill, thus making pedaling as easy as it would be on a front suspension bike. The cost is also dropping although these bikes still cost about fifteen percent more than front suspension bikes on average.

So in my mind this entire issue comes down to finance. If you have a little more money there is no longer any reason to choose a front suspension bike over a full suspension model.

Mountain [biking](#) is very scenic but the challenges of going over unpaved land can derail any enjoyment you might have had otherwise. So my recommendation is to get a full suspension mountain bike and ride with confidence that your bike can handle the roughest terrain of them all.

Learn more about this author, [Royce Radcliffe](#).



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