



CYCLING FACT SHEET No. 84

Use correct tyre pressure for a better ride

Unless your bike is fitted with airless tyres, you will need to pump them up at regular intervals.

An under-inflated tyre has more rolling resistance, is more prone to pinch flats, and may even come off the rim. Too much air can be equally bad, because pneumatic tyres are supposed to deflect slightly when under load.

An over-inflated tyre is more prone to damage from sharp rocks and similar hazards, will give a harsh ride on anything but the smoothest surface, and will have a tendency to bounce or slide.

So how do you determine the ideal amount of air?

Generally speaking, the greater the width, the lower the required pressure – meaning that road bike tyres will need more air than those on a mountain or hybrid bicycle. Most tyres have a maximum pressure or recommended range marked in pounds per square inch (psi) on the sidewall.

These figures are often based on an average-sized rider weighing about 75kg, therefore lighter riders need to use a bit less, and heavier riders a bit more.

Here is a rough comparison guide based on bike type and rider's weight:

	50kg	75kg	100kg
Road bike	90psi	110psi	130psi
Mountain bike/hybrid (hard surface use)	65psi	80psi	95psi
Mountain bike (off-road use)	30psi	40psi	50psi



Cyclists need to vary tyre pressure according to the surface condition they are riding on, with very sandy surfaces, such as mountain bike trails, calling for a reduction in pressure.

As the rear tyre of a bicycle supports more weight, it should be inflated to a higher pressure than the front – typically by about ten per cent.

Tyres need to be checked before every ride, because even if the bike gets little use, some normal air loss results from the rubber's natural porosity and through changes in ambient temperature.

Whenever possible, avoid using air compressors at service stations – they are designed to be high volume/high pressure pumps and can easily overfill a bike tyre to a point where it explodes off the rim.

It is worthwhile investing in an accurate digital tyre pressure gauge that can be used for all types of valves.

This fact sheet is one of a series dealing with the use of bicycles for recreation and transport in Western Australia. The series looks at a range of cycling-related topics including ride routes, touring tips, maintenance, safety, road rules, insurance and product reviews. It is not to be construed as the provision of legal advice or advice about insurance products.

Bikewest
Department of Transport
441 Murray Street, Perth WA 6000
Tel: (08) 9216 8000
Fax: (08) 9216 8497
Email: cycling@transport.wa.gov.au