

Making an informed choice: how to select the bike that's right for you

BY CHARLES HOWE

As with most other purchases these days, bicycle consumers are presented with a wide array of alternatives. For the first-time buyer who hasn't thought about two-wheeled transportation since leaving their BMX bike behind in adolescence, the number of choices can be dizzying. Here's a quick rundown of the various types.

Road bicycles are where the greatest diversity is to be found:

A *racing bicycle* is actually an excellent choice even if you don't race, since it does fine for recreational riding, tours, club rides, etc. Narrow, high-pressure tires and a position that brings the torso nearly to horizontal (thereby minimizing aerodynamic resistance and distributing weight more evenly over the hands, shoulders, and rear) make this an extremely efficient means of transportation, while numerous (16-18) gear combinations over a wide range help you climb all but the very steepest hills, depending on your ability. A variant of the racing bicycle is the sport/touring bike, which has a less-responsive geometry, a wider gearing range (such as a compact crankset with 34/50 tooth chainrings), and slightly wider tires on heavier rims.

A *single-speed bike* is a minimalist design often favored by bike messengers. It has one gear that is fixed (meaning you have to keep pedaling at all times and can't freewheel). Because of this, only a front brake is needed.

Time trial bikes became a specialized sub-type in the mid-1980s, with downward-sloping top tubes and "cowhorn" handlebars whose ends point forward. Triathletes quickly embraced specialized handlebars with extensions and elbow rests that bring the arms into a narrower position, and the design was largely complete. A disc wheel in the rear and deep-section wheel up front plus aerodynamic frame members make this the fastest type of bike, but the forward position, which puts more weight on the shoulders, is less comfortable and therefore impractical for long rides.

Triathlon bikes are the same as time trial bikes, but have a more upright seat tube, to accommodate the "running on the pedals" position that triathletes favor. Because of their more forward position, they may not be legal when international rules apply, such as national championships and professional races.

Loaded touring bicycles look much like sport/touring bikes, with the same basic frame pattern and turned-down handlebars, but have wider tires, a longer wheelbase, bosses for pannier racks and fenders, cantilever brakes (for more stopping power), generally heavier construction, and lower gearing. All of these characteristics help make the bike more suitable for carrying heavy loads over long distances. Once all the rage in the early 1980s, touring bikes are not usually included in manufacturer lines any more, and may have to be purchased from a custom frame builder.

A *cyclocross bike* is made for cyclocross races, which are mostly off-road, but the terrain is not quite as rugged as mountain bike races (more below), and some pavement is included as well. With cantilever brakes, wider tires, and slightly longer chainstays to stretch out the wheelbase a bit, they look like touring bikes, but have more wheel clearance in the fork and rear triangle areas, both for the tires (which are usually knobby) and the mud they carry in extreme conditions. Derailleur cables are routed along the top tube, again to cope with muddy conditions. Wider handlebars and slightly lower gearing (typically, a 38/50 chainring combination instead of the 39/53 on most road bikes) are spec'd on 'cross bikes, as well as mud-shedding pedals.

Mountain bikes, or MTBs (also called all-terrain bikes, or ATBs) were born in Marin County, California in the early 1970s and initially were nothing more than a cruiser bike with multi-speed gearing. Soon the basic pattern was set: slightly smaller wheels, straight handlebars, a more upright position, wider/lower gearing, cantilever brakes, and fat, knobby tires suited for rugged trails, rocks, mud, sand, etc. Beginning with the early 1990s, suspension gradually became *de rigueur*, first with a front shock-absorbing fork and an unsuspended rear triangle (called a “hardtail”), then with a flexible rear triangle (a “soft tail”), and finally with a coil/shock absorber in the rear (“full suspension” or “dual suspension”) that allows the rear wheel to move on pivots. Disc brakes have now largely replaced cantilevers.

The first MTB World Championships were held in Durango, Colorado, in 1986 and the men’s winner was hometown legend Ned Overend, on what is now called a cross-country course; additional subdisciplines such as downhill, dual slalom, and trials have been added, with specialized designs evolving for each. MTBs eclipsed road bike sales in the 1990s, and MTB racing was viewed as the future of the sport, but this has proven premature.

Hybrid bikes may combine features of both road and mountain bikes – typically, the straight handlebars, wider range gearing, and disc brakes of an MTB, with the wheel diameter and frame geometry of a road bike. The result is a traditional upright position that can be adapted, in several variants, for off-road use, commuting, or city/street use.

A *cross bike* – not to be confused with a cyclocross bike – uses the frame and larger-diameter wheels of a sport/touring bike with tires up to 32 mm wide suitable for use on relatively smooth unpaved surfaces, such as dirt roads and trails of gravel, hard-packed dirt or sand, and shallow mud. They can also be ridden on the road, and are not normally fitted with fenders, lights, or carrier racks.

A *commuter bike* also utilizes a sport/touring frame and is equipped with slightly narrower and smoother-tread tires than a cross bike, but a carrier rack, full fenders, and mounts for panniers betray a utilitarian, rather than recreational, mission. It may have an enclosed chainguard to allow long pants to be worn. Front and rear lights may also be installed for use in the early morning or late evening hours.

A *city bike* has an MTB frame and wide (38-50 mm), heavy belted tires for the hazards of urban riding, such as broken glass, potholes, sewer grates, and curbs. Some models have enclosed chainguards, suspension forks similar to MTBs, and front/rear lighting systems for use at night or in bad weather.

Comfort bikes are an updated version of the old “sports roadster,” but with derailleur gearing rather than a 3-speed internally-gear hub. They typically have the smaller wheels and frame of an MTB, with a tall head tube for a more upright riding position. Wide (45-50 mm), smooth or semi-slick tires, suspension forks, seat post suspension with a plush saddle, and drop-center/angled handlebars for easy reach all make the ride easier.



Components of an 18-speed, carbon-fiber framed racing bicycle (pedals omitted).