

# Bicycle Commuting<sup>1</sup>

As the weather warms and gas prices rise, some folks may be considering transportation alternatives to their automobile. Riding a bicycle is a great way to reduce expenses, improve health and fitness, reduce air pollution and lessen traffic congestion. Cycling can be a joyful reminder of childhood pleasures. The feel of wind and speed, changing of unobstructed panoramas, and the mobility and accessibility cycling affords are a few of these joys. Though a bike may not be suitable for every task or commute, it is appropriate for many. Traveling to work, school or running errands on a bicycle can be enjoyable provided you make the proper preparations.

Understanding a bit of bicycle history and physics can make your transition to a more human-powered lifestyle enjoyable and safe. The pedal-driven bicycle was invented in the 1860s, decades before the automobile. Today there are more bicycles worldwide than cars. In mechanical terms, the bicycle is the most efficient form of human-powered movement. On flat ground, a cyclist traveling 10-15 miles per hour uses the same amount of energy as a person walking. Much of the work done by a cyclist goes into pushing air aside. The air resistance is proportional to the square of the rider's speed. Thus, traveling at higher speeds requires more effort from the rider. When going up a hill, the cyclist works against gravity to build up potential energy which is then released when coasting down the hill. Fortunately, most bikes are equipped with gears, so a rider can maintain a comfortable cadence regardless of mild wind and hills.

So how does one prepare for commuting by bicycle? First, note that bicycles are designated as vehicles in all 50 states. Thus riders have the same rights and responsibilities as drivers of motorized vehicles. Generally bikes should not be ridden on sidewalks. Riders should also use bike lanes when available or ride to the right side of the road.

Some things to consider before riding are: safety, weather, travel route, your physical needs, and your equipment. A short trip to a friend's house doesn't require much planning. You will probably just hop on your bike and go. Daily commutes to work, school or the store can become fairly routine. You should review various routes and settle on one based on travel time, your fitness level and how safe you feel riding with other traffic that uses the route. For instance, a route through neighborhoods, although longer, may be better for beginners, than a shorter route along a highway. Watching the weather is important if you plan to be on your bike throughout the day. It may be sunny and warm when you leave in the morning, but very different when you return home. Better to have rain protection and not use it than get wet. Traveling longer distances will require even more planning. You will need to keep your body fueled. Carry water and some energy bars. Keeping your bike well maintained will eliminate

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<sup>1</sup> This article prepared with assistance of Doug Copp, Sedona Bicycle Advisory Committee, and City of Sedona (Dave Singer, Bicycle Coordinator; David Jakim, Records Clerk; Jared Raymond, Senior Planner; Charles Mosley, Director Public Works/City Engineer)

most breakdowns, but you still have to be prepared for a flat tire. You should carry a spare tube, air pump and a few tools on any long ride. The prickly nature of many Southwestern plants makes thorn-resistant tubes, tube liners and tube sealants an important consideration. Gloves and sunglasses can add to your comfort, but a helmet is a must for all rides. You may want to attach a carrier for small packages so that your hands are free for steering the bike. If riding between dusk and dawn, your bike needs to have rear reflectors and headlights. A bell or horn is also recommended.

Bicycles can be part of a mixed-mode commute. Cycle to or from a bus stop, then use the bike rack on the bus and complete your journey. Some folks may want to ride a bike to work, but then need a car during the work day. Maybe your employer has company vehicles available for use during the workday. If not, perhaps, you could leave your personal vehicle at work and bike between home and work.

What about getting hot and sweaty? Some places of employment have shower facilities, but most commutes are not long enough to necessitate a shower.

Where to park your bike during the workday is another issue. Many places have bike racks, some places have bike lockers, and some workers keep their bikes in their office. Bikes are expensive, so secure your bike in a safe location.

If you're in the market for a new bike for your commute, there are some important factors to consider. Today's bicycles are engineered for a range of different purposes. You can choose from mountain bikes, street bikes, hybrids, racing bikes, comfort cruisers and more. Getting the design that fits your purpose will help to ensure better performance and more enjoyment from your cycling experience. Getting the right bike means considering factors such as your size and weight and the route you are likely to use for going to work and other places. Your answers will narrow down your options and help determine the bike that suits you best. You can find great information on the Internet, as well as from talking to your local bike shop and test riding some of the models they have available.

As your level of fitness and cycling experience increase, your bicycle commutes will feel less like work and more like recreation. The sensory experience on a bicycle is much greater than inside the bubble-like environment of a car. You will see more along the road from your bike than you will from your car. The sunlight, sounds, smells and air movement will make you feel more connected to the earth. You will also interact more with people you encounter along the way. Ultimately, cycling is about freedom, and bicycling provides transportation freedom to almost everyone, regardless of age or income.