Bicycling to “Green-up” Transportation

*If each American made the much less extreme choice of cycling instead of driving just one day a week, it would save roughly 40 billion barrels of fuel a month—which accounts for more than half the oil we import from the Persian Gulf*. (Gierson, B. [2009.] Power to the People. *Popular Mechanics*, p. 64. <http://www.popsci.com/scitech/article/2009-02/power-people>)

Bicycles used for transportation have two colors: the paint color, and green! Bicycles are green from economic (save money) and environmental (reduce ecological footprint) perspectives, which usually go “hand in hand.” For example, there is no need to purchase gasoline to power a bicycle, thereby reducing the amount of oil that must be extracted and refined. The most recent oil disaster in the Gulf of Mexico sounds a clarion call to embrace a transportation system that is far less oil dependent. The bicycle—which is the most energy efficient form of ground transportation—can be put to good use towards that end. If humans could “burn” gasoline to power their muscles, the typical adult bicycling to work, to shop, etc. would realize a fuel efficiency of about 700 miles per gallon (mpg)! Of course, bicycles are human powered by the food we eat, not by gasoline (don’t try consuming it—it’ll kill you). Additionally, we don’t need to convert the food into ethanol—which requires even more energy—in order to fuel the bicycle.

How else does bicycling for transportation help us reduce our ecological footprint? (1) We decrease automobile emissions of carbon dioxide (CO2). Each gallon of gasoline combusted generates about 20 lb of CO2**.** Thus, an automobile with a fuel efficiency of 20 mpg puts 1 lb of this global warming gas into the atmosphere for each mile traveled (and at 12,000 miles per year, that’s 6 tons!) (2) We decrease automobile emissions of nitrogen oxides, which result in ground level ozone pollution (yes, we have this in Morgantown!) (3) We preserve habitat for other living creatures, because less land surface is paved over for parking lots and expansion of roads. This means we have more trees to remove CO2 from the atmosphere (and provide shade, etc). This also means that we decrease water run-off, local flooding, and water pollution, because green space is not replaced with impervious surface. Oh, and did I mention less road kill and resulting summer stench (from those unfortunate inhabitants of the planet that get in our hurried way)?

In the U.S., transportation accounts for about 70% of the oil used (Harvard’s Belfer Center for Science and International Affairs) and almost 30% of the CO2 emitted into our atmosphere (U.S. Environmental Protection Agency). Morgantown employers, public officials, and individual citizens can act locally to help change this scenario by creating a bicycle friendly transportation infrastructure.To help Morgantown citizens gain bicycling skills and comfort in order to “green-up” their transportation, “Confident City Cycling Traffic Skills 101” is offered through the Morgantown Municipal Bicycle Board (register at <http://www.bikemorgantown.com/traffic_skills101.html>).

For more reading see: “Green Bicycling: Pushing the Green Envelope.” <http://www.ibike.org/environment/green-bicycling.htm>; and “Look Ma, No Car!” <http://www.sierraclub.org/sierra/201003/nocar.aspx>.