Health Benefits of Active Transportation in New York City

Active transportation is any self-propelled mode of transportation (such as walking, jogging, bicycling, or in-line skating) to get from one place to another. Most New Yorkers who use public transportation also use active transportation when they walk to and from the subway or bus stop.

Active transportation is by definition also physical activity. Regular physical activity helps prevent early death, obesity, heart disease, high blood pressure, diabetes, stroke, colon cancer, breast cancer, depression, cognitive decline, and osteoporosis.

Active transportation can reduce private car, taxi or other motor vehicle trips, which decreases pollution and improves air quality. Use of active transportation in conjunction with public transportation, instead of car trips, helps make New York City’s roads safer for everyone.

This report describes the health benefits of active transportation in New York City. Recommendations to increase the benefits of active transportation are on page four.

Physical activity provides important health benefits

- Physical inactivity contributes to one in eight deaths annually among New Yorkers aged 30 and older from cardiovascular disease (including heart disease and stroke), cancer, and diabetes—an estimated 6,300 deaths a year.
- Regular physical activity such as brisk walking or biking for two and a half hours a week (a half hour every weekday) lowers risk of premature death by more than 20%.
- Brisk walking or biking for a half hour every weekday reduces heart disease risk.
- Regular brisk walking for 20 to 30 minutes per day can reduce diabetes risk by 30%.

These findings quantify preventable mortality using methods from a national analysis that relied on previously published evidence on the causal associations between modifiable risk factors and cause of death.

New Yorkers get more physical activity through transportation than recreation

- On average, people who walk or bike to work get more than an hour of active transportation time daily.
- New Yorkers who walk or bike to work get more than 40 minutes more combined transportation and recreation physical activity per day than those who use a personal car or taxi.
- New Yorkers who take public transportation for most of their commute get almost half an hour more daily combined transportation and recreation physical activity than those who use a personal car or taxi.

Recreation activity, such as exercise or sports participation, is conducted in addition to other daily activities. Active transportation includes active commuting as well as other everyday activities such as walking or biking to the store.

Shifting from motor vehicles to active transportation reduces car trips, congestion, and air pollution

- Motor vehicles contribute an estimated 7% of fine particulate (PM$_{2.5}$) emissions and 28% of nitrogen oxides emissions in New York City.$^3$ The highest concentrations of these pollutants are found in areas where traffic density is highest.
- Each year, PM$_{2.5}$ pollution in New York City causes more than 3,000 deaths, 2,000 hospital admissions for lung and heart conditions, and approximately 6,000 emergency department visits for asthma.$^4$
- If fewer cars are on the roads, air quality will improve.
- Reducing pedestrians’ proximity to heavy traffic volumes can reduce their exposure to harmful pollutants. For example, the City’s creation of a car-free pedestrian plaza in Times Square in 2009 substantially reduced levels of NO$_2$ in the plaza. Air pollution exposure can be reduced by exercising away from heavy traffic.
- The health benefits of regular physical activity, even in polluted air, outweigh the risks of inactivity.$^1$ Estimates of the impact of switching from daily car to bike trips found biking significantly increases life expectancy.$^5$
Transportation injuries are far less common in New York City than nationally

- New York City’s injury death rate is about half of the national rate (32 vs. 59 per 100,000 residents in 2005-2007). The City’s traffic-related death rate is less than one third of the national rate (4 vs. 14 per 100,000).
- New York City’s low traffic fatality rate contributes to its low overall injury death rate compared to the US.
- More than half of New York City workers use public transportation on a daily basis, which is safer than driving. Nationally, for every 100 million miles traveled, passenger death rates on mass transit are 95% less than passenger death rates in motor vehicles, according to the Federal Transit Administration.

![Image of Injury death rates, US vs. NYC, 2005-2007]

**Sources:** Data on all injury deaths are from WISQARS (US) and NYC DOHMH Office of Vital Statistics. Traffic-related death data are from FARS (US) and NYC Department of Transportation Traffic Fatality Database (NYC).

New York City continues to get safer for pedestrians

- Traffic deaths have declined in New York City about 30% since 2000. Pedestrian deaths, which make up the largest portion of traffic deaths, have declined 59% since 1990 (366 in 1990 vs. 151 in 2010).
- Speeding and driver inattention are major contributors to motor vehicle crashes with pedestrians and bicycles in New York City.
- Engineering interventions, such as lane reconfigurations and sidewalk extensions, can reduce the number of pedestrian injury crashes at high-risk intersections and traffic corridors in New York City.6

![Image of New York City Pedestrian Deaths, 1990-2010]

**Sources:** NYC Department of Transportation Traffic Fatality Database

**METHODS AND DATA.**


Physical activity analysis: The Physical Activity and Transit Survey was made possible by funding from the U.S. Department of Health and Human Services. Data are weighted to the NYC adult population per the American Community Survey (2006-2008) and are age-adjusted to the US 2000 standard population.


Recommendations

Be active: Walk, bike, and use public transportation.

- Take advantage of everyday opportunities to walk or bike to work, school, stores, or other destinations.
- If you can’t actively commute for the full trip, take public transportation and get off a stop or two early and walk.
- Health care providers and health plans should encourage active transportation as an easy way to increase physical activity.

Be safe on New York City streets no matter how you travel.

- Wear a helmet when biking. Working cyclists and children 13 or younger are required to by law—everyone else should.
- When walking, always cross with the light, not against it.
- Drive safely: Slow down and don’t text or talk on the phone when driving. Unless otherwise posted, the speed limit in New York City is 30 mph.

Design streets, neighborhoods and buildings to encourage walking and biking.

- Continue construction of traffic-calming measures such as pedestrian refuge islands, sidewalk extensions and lane reconfigurations.
- Provide secure indoor parking for bicycles to encourage employees to bike to and from work.
- Continue to install on-street and protected bike lanes.

REFERENCES.