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## Boston University Medical Center

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# NEWS

For Immediate Release  
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### CIGARETTE SMOKING: A RISK FACTOR FOR IMPOTENCE

Boston, Mass.--Cigarette smoking is a major risk factor for the development of impotence, according to a study published in the current issue of the Journal of Urology. The study, conducted by researchers at the University Hospital (UH) and Boston University School of Medicine (BUSM), is the first to document that impotent men who smoke have characteristic blockages of their arteries leading to the penis. The researchers found that the more they smoked, the more the blockages occurred.

Impotence--or the inability to achieve or sustain an erection--affects an estimated 10 million American men. In the past, it was thought that impotence was a psychological condition. Today, most cases of impotence are attributed to physical damage to the penile arteries thought to be caused by the same risk factors as those related to heart disease: high blood pressure, diabetes, high cholesterol and smoking.

The researchers studied the medical histories and penile x-rays of 195 impotent men whose average age was 35. After controlling for age, history of risk factors, and injury to the groin, the researchers concluded that men who smoked had significantly more penile arterial disease than those who didn't smoke.

They found that the risk of developing a blockage (a narrowing of 50 percent or more) in the larger penile artery was 15 percent higher for men who smoked 5 pack-years (1 pack per day for 5 years) than for non-smokers. The percentage doubled to 31 percent for 10 pack-years and quadrupled for 20 pack-years.

"This study indicates that cigarette smoking is a risk factor independent

of high blood pressure, diabetes and high cholesterol for developing significant narrowing of the penile arteries," says Max Rosen, M.D., the lead author of the study and a resident in the UH's Radiology Department. "The implications of this study are particularly important for young men whose only potential risk factor for impotence is smoking," says Alan Greenfield, M.D., chief of vascular radiology at UH and contributing author of the study.

While previous studies have documented penile artery disease in older patients who also had other evidence of coronary artery disease, this is the first study to document penile artery disease in relatively young smokers who have no other evidence of arterial disease. "Although a study of smokers who are not impotent is needed to confirm this data, it appears that smoking may affect the penile arteries in a select group of young men many years before the more generalized affects of artherosclerosis are evident," says Rosen.

A second phase of the study focused on the relationship between cigarette smoking and pelvic trauma in the development of impotence. A recent study concluded that trauma to the groin can cause arterial damage that may result in immediate impotence or may place a man at increased risk for developing impotence in the future. This study indicated that smoking may accelerate the development of impotence in patients who did not suffer immediate impotence following pelvic trauma.

According to Irwin Goldstein, M.D., a professor of urology at BUSM, the co-director of the New England Male Reproductive Center at UH and one of the authors of this study, cigarette smoking has already been linked to blockage of other arteries. "This study, by showing the association of smoking to blockage in the penile arteries, further emphasizes the need to encourage men to stop smoking," he adds.

Boston University School of Medicine is located in the South End of Boston between two of its principal teaching hospitals, the University Hospital and Boston City Hospital.