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Colds

As if the physical annoyances of having a common cold aren't bad enough, research indicates that such upper respiratory illnesses affect cognitive function as well. Not surprisingly, there is reduced alertness and overall slowing of mental functions (such as reaction time). Impairment in learning new tasks has also been found in persons with colds.

While exposure to a rhinovirus is the most important factor in contracting a cold, a number of other variables have been identified that affect susceptibility to colds. For example, a study of 800 adult volunteers who were exposed to one of four common cold viruses found that parents (older than 24 years of age) were less likely to get sick than were nonparents (whether or not children were still living in the home). The assumption is that parents develop greater host resistance.

Having low socioeconomic status (SES) during childhood or adolescence is associated with increased susceptibility to common colds during adulthood. Adults who experienced low SES during childhood have been found to have shorter leukocyte telomere length (a section of DNA at the end of a chromosome), an indicator of decreased immune function.

Socioeconomic status (SES) is commonly measured by looking at actual income and/or education level. Subjective SES is measured by asking individuals to place themselves on one rung of a 9-rung ladder to represent how they see their standing compared to other persons in the United States, with respect to income, education, and occupation. Interestingly, persons who place themselves lower on the ladder have been found to be

more susceptible to developing a cold when exposed to a rhinovirus. This increased risk was present regardless of their actual SES. Persons rating themselves as having lower subjective SES were also found to be getting less sleep, which may be one reason for their increased susceptibility to colds.

With respect to sleep, individuals who get less than 7 hours of sleep per night have been found to be nearly three times more likely to develop a cold after exposure to a rhinovirus than those getting 8 or more hours of sleep per night. Sleep efficiency, the percentage of time asleep while in bed, is also related to susceptibility to the common cold. A sleep efficiency of less than 92% was associated with five times greater likelihood of coming down with a cold than those with a 98% or greater sleep efficiency. Previous research suggests that a sleep efficiency of less than 80% is associated with a greater likelihood of illness in general.

On a more positive note, individuals who have a positive emotional style are found to be more resistant to developing a common cold when exposed to a rhinovirus. A positive emotional style is characterized by vigor, happiness, and a sense of being at ease. Conversely, a negative emotional style is characterized by depression, anxiety, and hostility.

While colds are common, they aren't equal opportunity as these studies indicate. Many factors affect whether or not exposure to a rhinovirus will actually produce a cold. While some of the factors that convey increased susceptibility cannot be changed (e.g., childhood SES) or readily changed (e.g., parenthood), others can be changed or modified (e.g., amount of sleep, emotional style). And, of course, according to the Centers for Disease Control and Prevention (CDC), frequent handwashing is one of the most important behavioral strategies to reduce the likelihood of catching a cold.

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