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VITAL SIGNS; Hazards | Sleeping Through Noise, But Still Feeling Its Effects

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Noise while you are sleeping can significantly raise your blood pressure, even when it does not wake you up, a new study suggests.

Researchers monitored 140 generally healthy men and women ages 45 to 70 as they slept near four European airports. They used electronic devices to monitor blood pressure and to measure noise levels from airplanes, traffic and indoor sounds. Noise incidents varied from 5 decibels, roughly the sound of a quiet room, to more than 90 decibels, the equivalent of a loud stereo. The study was posted online Feb. 12 in The European Heart Journal.

At each site, the effects were consistent: **a noise of 35 decibels or more -- roughly equivalent to an airplane passing overhead or a bed partner's loud snoring -- was associated with an average 6.2 increase in systolic blood pressure (the first number) and a 7.4 increase in diastolic pressure; the louder the noise, the greater the increase. The source of the noise made no difference, and people did not get used to it through the night. Every time noise occurred, blood pressure went up.**

"It may well be that continuous exposure to noise for a long time will eventually give rise to a chronic increase in blood pressure," said Dr. Lars Jarup, the senior author and a reader in public health at Imperial College London. "And it's fair to say that if you increase blood pressure until you are clinically hypertensive, this is a major risk factor for cardiovascular illness."