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NOISE AND WORK PERFORMANCE

When assessing psychosocial risk factors at work occupational hygienists should pay close attention to background noise. A conceptual performance-arousal curve presented by Hebb (1949) shows how too little or too much of noise can affect work performance.

Optimal performance occurs when mental stimulation is around the top of the curve. The performance is likely to be impaired both at low levels of stimulation (dull, monotonous work), and at over-high levels of stimulation, where demands are excessive.

In terms of noise levels, dull, monotonous work may benefit from the addition of noise, as this increases stimulation towards the top of the curve. This explains the popularity of music as a background on routine production lines.

Conversely, when work is already demanding, the introduction of further stimulation is likely to increase those demands beyond the top of the curve and thus impair performance.

This is particularly the case when noise contains meaning (e.g. conversation), rather than consisting of neutral 'white noise' such as may be generated by machinery. Noise with meaning creates a need for additional mental processing to screen out irrelevant information.

Source: "Occupational Hygiene" 3rd ed. by K. Gardiner p. 365