



## OBESITY AND WORK-RELATED FACTORS

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There is evidence that work-related factors, such as job strain, occupational position, some chemical exposure and shift work; sleep disruption/insufficiency may contribute to abdominal obesity .

Human natural body rhythms are called circadian rhythms which are regulated by a “circadian clock”; located in the hypothalamus. Nearly all of the biological processes including the sleep-wake cycles, body temperature, energy metabolism, cell cycle and hormone secretion have a circadian rhythm and are controlled by this circadian clock. Shift work disrupts the clock’s function and is linked to circadian and metabolic consequences such as altered plasma lipid metabolism and adiposity. Shift work-related abnormalities in circulating lipids, central obesity, and hypertension have been repeatedly reported. The work characteristics influence the occurrence of abdominal obesity. The rapid shift toward more sedentary work with less physical activity is an obvious risk factor for abdominal obesity. Changes in the occupational environment may directly contribute to the epidemic of abdominal obesity. It is now evident that a variety of chemicals exposure can act on cellular pathways to promote fat accumulation and obesity. There is evidence of obesogenic activity of some chemicals include :

Bisphenol A, a chemical used in food packaging and plastic.

Phthalates, chemicals found in plastics and fragranced personal care products.

Brominated flame retardants used in electronics and foam products.

Perfluoroalkyls, “Teflon chemicals” used in food packaging and nonstick cookware .

In summary ,

1. health behaviors leading to overweight and obesity are influenced by the work environment .
2. Creating healthier work environments and lifestyles requires an integrated, yet adaptable, approach that addresses work organization and individual risk factors .
3. We also need actions to prevent exposures to obesogenic chemicals .
4. Leadership support and employee engagement are essential components for planning sustainable interventions .