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# ABDOMINAL OBESITY IN FEMALE NIGHT SHIFT WORKERS

## NutSono



Atividade voluntária  
em pesquisa

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### Introduction

The world is in economic development and our society is migrating to a 24 hour system. Night shift work is now a reality for 20% of workers in Europe and North America. Women represent an important part of this population. Recently, studies have related night shift work with some health problems, such as metabolic syndrome and obesity. Our objective was to evaluate, through a systematic review, the association between night work and abdominal obesity in women population.

### Methods

- Systematic review searching in electronic databases (Pub Med, LILACS, Medline and Cochrane Library) in April 2018.
- It resulted in 85 studies. Reading the titles and abstract, nine articles were selected.
- Search was performed by three different researchers and the results were similar.
- Studies were evaluated by STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) criteria.

### Results and Discussion

All nine articles showed a positive association between night shift work and abdominal obesity. The results are shown in the table below.

Author	Local, year	Study design	Population	Association between night shift work and
Peplonska, Beata	Poland, 2015	Cross-sectional	724 women	Abdominal obesity OR = 2,4 (95%CI: 1,2–4,5).
Lee, Gyeong-Jin	Korea, 2016	Prospective cohort	934 women	Abdominal obesity OR=1,60 (95 % CI: 1,36–1,87).
Pimenta, Adriano Marçal	Brazil, 2012	Cross-sectional	131 women	High cardiovascular risk RP = 1,67 (CI 95%: 1,10-2,54).
Chen, Jong-Dar	Taiwan, 2010	Cross-sectional	1828 women	Abdominal obesity OR = 2,9 (CI 95%: 1,7–5,1).
Macagnan, Jamile	Brazil, 2012	Cross-sectional	784 women	Abdominal obesity RP= 1,45 (CI 95%: 1,10–1,92).
Mota, Maria Carliana	Brazil, 2014	Cross-sectional	52 women	Higher frequency of increased abdominal circumference (44,2% e 17,6%; p=0,04).
Sun, Miaomiao	China, 2018	Cross-sectional	426 women	Abdominal obesity OR = 1,20 (CI 95%: 1,01–1,43).
Artuzo, Isadora Pinto	Brazil, 2017	Cross-sectional	58 women	Increased abdominal circumference (p=0,006) 89,35; dp=14,12 x 81,23; dp=11,70.
Morales, Carlos Celis	UK, 2017	Cross-sectional	62.951 women	Abdominal obesity OR =1,18 (CI 95%: 1,10–1,26).

### Conclusions

Night work can lead to lifestyle changes, including sleep deficiency, changes in hormones, changes in dietary patterns and decreased physical activity during leisure time. All of these consequence have been linked to weight gain and obesity in the women population.

### References:

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