

## Effectiveness of physical activity interventions for overweight and obesity during pregnancy: a review of the content of behaviour change interventions.

The World Health Organization physical activity guidelines advise pregnant women to engage in at least 150 minutes of moderate-intensity aerobic physical activity throughout the week. Exercise both pre-and post-partum can prevent pregnancy complications, support weight management, and reduce the risk of gestational diabetes for women with overweight and obesity. To encourage such lifestyle changes, behaviour change techniques (BCTs) such as providing information on the likely consequences should they not exercise, sharing instructions on how to exercise, and reinforcing efforts or progress can be used to bring about change. It is important to understand which BCTs may be most effective for pregnant women, given the barriers to engaging in exercise during pregnancy. The systematic review and meta-analysis summarise the evidence for the effectiveness of physical activity interventions for pregnant women with overweight and obesity.

The paper also identifies which BCTs were the most frequently used and determines which were the most effective in improving physical activity levels. The evidence was derived from 19 studies conducted across the world, primarily randomised control trials looking at women with a BMI >25kg/m3 pre-pregnancy or in their 1st trimester.

The results show that physical activity interventions are to some extent effective at increasing physical activity levels for women with overweight or obesity. Women should be encouraged to use self-monitoring tools such as diaries or workbooks to increase their physical activity levels. There is recognition that women's social support network (family, friends) needs to also be actively involved in supporting women. As pregnancy progresses, women tend to become less active, thus future research is required to assess trimester (stage of pregnancy) and whether this impacts intervention effectiveness and the BCT employed.

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