

**THE POTENTIAL UTILITY FOR  
MASSAGE THERAPY DURING  
PREGNANCY TO DECREASE STRESS  
AND TOBACCO USE**

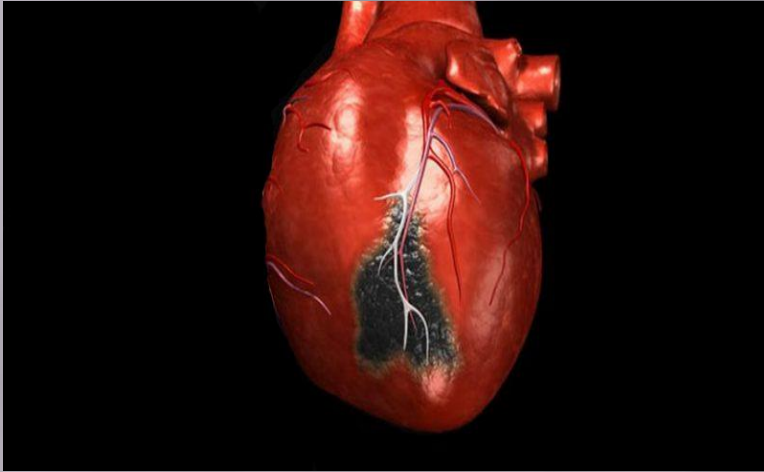


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A significant number of women continue to smoke tobacco during pregnancy despite the increased risk of complications to fetal and infant development. Therefore, effective interventions are needed to assist pregnant women with the process of tobacco cessation. Traditional counseling programs have demonstrated some success; however, novel approaches that target stress as a mechanism in the maintenance of addiction would be valuable.



**Tobacco smoking is a leading and preventable cause of illness. For women, smoking is associated with increased risk for cancer, heart disease, emphysema, as well as a reduction in fertility and multiple complications during pregnancy. Tobacco use prohibits nutrients from proper absorption in the womb, and the mother is at greater risk for having a still or premature birth. Additional risks of tobacco smoking during pregnancy include Sudden Infant Death Syndrome, infants being born with weak lungs resulting in asthma and increased susceptibility to infections, as well as birth defects, including cleft lip.**

**Research shows that stress and negative affect are primary motivators underscoring cigarette usage in the general population. Higher levels of stress lead to an increase in the number of cigarettes smoked per day, especially if the individual experiencing high levels of stress does not have a strong social support system.**

# Massage therapy

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graph TD; A[Massage therapy] --> B[Decrease level of cortisol in blood]; A --> C[Increase producing of serotonin and dopamine]; A --> D[Feeling of calmness, enervation]; A --> E[Improvement of blood flow, lymph flow];
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Decrease level of **cortisol** in blood

Increase producing of **serotonin** and **dopamine**

Feeling of calmness,  
enervation

Improvement of blood  
flow, lymph flow

**Possible future directions of  
development in massage therapy:**

- 1. Struggle against hypertonic disease**
- 2. Implementation of massage to life of  
office staff to improve performance**

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**<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6087659/>**