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## Relation Between Coffee Consumption During Pregnancy and Preeclampsia; A Letter to the Editor

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### Abstract

Some women continue to drink coffee during pregnancy. Coffee contains caffeine. There is a concern that caffeine consumption in pregnant women may increase and affect their health and that of the fetus. However, the specific effects of caffeine on the fetus are still unknown [1]. Consumption of less than 300 mg of caffeine during pregnancy, which is equivalent to 3 cups of coffee, does not seem to be a problem [2]. However, some studies have shown that even consumption of less than 300 mg of caffeine leads to Pregnancy failure [2]. Caffeine consumption during pregnancy affects placental-fetal development [1]. In addition, it reduces fetal growth because caffeine easily enters the blood around the placenta and reduces blood flow in the placenta [1]. Therefore, the nutrition and oxygen supply to the fetus is reduced. Low oxygen levels in early pregnancy are an important factor in inducing placental angiogenesis [3]. In the first trimester of pregnancy, when the fetus grows at low oxygen concentrations, it causes proliferation of trophoblast cells [3]. This inflammatory response also occurs before preeclampsia. Therefore, it is possible to confirm the hypothesis that the consumption of caffeinated substances, such as coffee during pregnancy, can lead to preeclampsia. However, a clinical study reported that there was no difference in the meat, fruit, vegetable, coffee and alcohol consumption, smoking, folate use, and oral contraceptives as a possible risk factor of preeclampsia in the current pregnancy [4]. Preeclampsia is one of the serious problems in pregnancy that endangers the health of the mother and fetus. About 10 to 15% of women develop high blood pressure (140 to 90 and above) after 20 weeks of pregnancy. If this high blood pressure is accompanied by proteinuria, it indicates preeclampsia, which can lead to the development of a serious disorder [5]. About 5,000 women and one million babies die from this disease annually [5]. According to one of the most important indicators in any country is the mortality rate of mothers and infants, so we must identify the factors that lead to an increase in the incidence of preeclampsia and try to eliminate them. However, since the effects of caffeine, even in small amounts, are still unknown, it is best to advise pregnant women not to use caffeinated substances during pregnancy. Moreover, if a person is addicted to caffeinated substances, it is better to be taken care of before pregnancy and after quitting addiction of caffeinated substances, get pregnant. In addition, more clinical studies are recommended to evaluate the effect of caffeinated substances in pregnancy and preeclampsia.

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