Substance abuse is long-term worldwide problem. This thesis summarizes findings about the effects of stimulants, opiates and hallucinogens and focuses on the most commonly used illegal representatives of individual groups: cocaine, amphetamines, heroin and LSD. All these substances have negative effect on both mother and her fetus. Some of addictive substances can influence pregnancy and childbirth. There is also higher risk of fetus mortality and morbidity of the new born baby. Prenatal exposure to addictive substances could have influence on the birth weight, length, head circumference, its further growth and behavior. Some drugs can cause neonatal abstinent syndrome which can lead without prenatal care to death of newborn.