What are the differences between FASD and neonatal abstinence syndrome (NAS)?

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Using substances like alcohol or opioids during pregnancy can affect the fetus. Drinking during pregnancy can cause fetal alcohol spectrum disorders (FASD).[1] Using certain substances like opioids or meth can cause neonatal abstinence syndrome (NAS). While NAS is mainly linked to opioids (such as heroin, codeine, oxycodone, methadone, and/or buprenorphine), some prescription medications (like antidepressants) and illegal substances (such as meth) have been found to cause NAS as well.[2]

Although both FASD and NAS are caused by substance use during pregnancy, there are many differences between these two conditions. One of the major differences is that NAS can be treated, but FASD is lifelong.

Below we have listed some of the common symptoms of FASD and NAS. Things that are in bold are effects that are seen in both conditions. Please note that not every person with prenatal substance exposure will have an FASD or NAS. Not every person with FASD or NAS will have all of the effects listed.

FETAL ALCOHOL SPECTRUM DISORDER (FASD)	NEONATAL ABSTINENCE SYNDROME (NAS)
• Affects as many as 5% of children in the United States[3] • Caused by drinking during pregnancy[4] • Not caused by exposure during nursing; although it can have other effects on the child, alcohol exposure during nursing does not cause FASD[5] • Early intervention can help[6] • Low birth weight[7] • Microcephaly (the head and brain are much smaller than expected)[8] • Not linked with withdrawal symptoms • Has lifelong effects[9]	• Affects less than 1% of children in the United States[15] • Caused by substance use during pregnancy[16] • Not caused by exposure during nursing; although it can have other effects on the child, substance exposure during nursing does not cause NAS[17] • Early intervention can help[18] • Low birth weight[19] • Newborn experiences withdrawal symptoms (such as high-pitched cry, restlessness, and/or seizures)[20]

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FETAL ALCOHOL SPECTRUM DISORDER (FASD)	NEONATAL ABSTINENCE SYNDROME (NAS)
• Most effects are not noticeable right after birth ◦ Effects can include: sensitivity to light, touch taste, smells, or sound; issues with speech and language; hyperactive and impulsive behavior; and short attention span[10, 11, 12, 13, 14]	• Effects are usually noticeable right after birth[22] ◦ Effects can include: vomiting; sweating; fever; tremors; excessive crying; poor eating skills; and sleep problems

POSSIBLE EFFECTS	ALCOHOL	TOBACCO	OPIOIDS	METH	COCAINE	MARIJUANA
LOW BIRTHWEIGHT	X	X	X	X	X	X
PREMATURE BIRTH	X	X	X		X	
BIRTH DEFECTS	X	X	X		X	
CHANGES IN BRAIN STRUCTURE AND/OR FUNCTIONING	X	X	X	X	X	X
COGNITIVE EFFECTS	X	X	X	X	X	X
BEHAVIORAL EFFECTS	X	X	X	X	X	
DECREASED MOTOR SKILLS	X	X	X	X		

Chart sources: [23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45]

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