Breastfeeding and Medications

Introduction Over the years, far too many women have been ***wrongly*** told they had to stop breastfeeding because they must take a particular drug. The decision about continuing breastfeeding when the mother takes a drug, for example, is far more involved than whether the baby will get any of the drug in the milk. It also involves taking into consideration the risks of not breastfeeding, for the mother, the baby and the family, as well as society. And there are plenty of *risks in not breastfeeding*, so the question essentially boils down to: **Does the addition of a small amount of medication to the mother's milk make breastfeeding more hazardous than formula feeding?** The answer is ***almost never***. Breastfeeding with a little drug in the milk is almost always safer. In other words, **being careful** means *continuing breastfeeding*, not stopping.

Remember that stopping breastfeeding for a week may result in permanent weaning since the baby may then not take the breast again. On the other hand, it should be taken into consideration that some babies may refuse to take the bottle completely, so that the advice to stop is not only incorrect, but often impractical as well. On top of that it is easy to advise the mother to pump her milk while the baby is not breastfeeding, but this is not always easy in practice and the mother may end up painfully engorged.

Breastfeeding and Maternal Medications

Most drugs appear in the milk, but usually only in tiny amounts. Although a very few drugs may still cause problems for infants even in tiny doses, this is not the case for the vast majority. **Breastfeeding mothers who are told they must stop breastfeeding because of a certain drug should ask the physician to make sure of this by checking with *reliable sources***. Note that the CPS (in Canada) and the PDR (in the USA) are not reliable sources of information about drugs and breastfeeding. These "resources" are merely a compilation of the information provided by the drug manufacturers who are more interested in their medical legal liability than the interests of the mother and baby. Their policy is essentially "We can't be held responsible if the mother interrupts breastfeeding". **Or the mother should ask the physician to prescribe an alternate medication that is acceptable during breastfeeding**. In this day and age, it should not be a problem to find a safe alternative. If the prescribing physician is not flexible, the mother should seek another opinion, but *not stop breastfeeding*.

Why do most drugs appear in the milk in only small amounts? Because what gets into the milk depends on the concentration in the mother's blood, and the concentration in the mother's blood is often measured in micro- or even nano-grams per millilitre (millionths or billionths of a gram), whereas the mother takes the drug in milligrams (thousandths of grams) or even grams. Furthermore, not all the drug in the mother's blood can get into the milk. Only the drug that is not attached to protein in the mother's blood can get into the milk. Many drugs are almost completely attached to protein in the mother's blood. Thus, the baby is *not* getting amounts of drug similar to the mother's intake, but almost always, much less on a weight basis. For example, in one study with the antidepressant paroxetine (Paxil), the mother got over 300 micrograms per kg per day, whereas the

baby got about 1 microgram per kg per day).

Most Drugs Are Safe If:

They are commonly prescribed for infants. The amount the baby would get through the milk is *much less* than he would get if given directly.

They are considered safe in pregnancy. This is not *always* true, since during the pregnancy, the mother's body is helping the baby's get rid of drug. Thus it is theoretically possible that worrisome accumulation of the drug might occur during breastfeeding when it wouldn't during pregnancy (though this is probably rare). However, if the concern is for the baby's getting exposed to a drug, say an antidepressant, then the baby is getting **exposed** to much more drug at a much more sensitive time during pregnancy than during breastfeeding. Recent studies about withdrawal symptoms in newborn babies exposed to SSRI type antidepressants (Paxil, for example) during the pregnancy somehow managed to implicate breastfeeding as if this type of problem requires a mother not to breastfeed. (Good example of how breastfeeding is blamed for everything.) In fact, you cannot prevent these withdrawal symptoms in the baby by breastfeeding, *because the baby gets so little in the milk*.

They are not absorbed from the stomach or intestines. These include many, but not all, drugs given by injection. Examples are gentamicin (and other drugs in this family of antibiotics), heparin, interferon, local anaesthetics, omeprazole. Omeprazole (Losec, Prilosec) is interesting because it is destroyed very quickly in the stomach. During the manufacture of the drug, a protective layer is added to the drug to prevent its destruction and the drug is thus absorbed into the mother's body. Thus, the drug is covered by a protective layer that prevents its destruction in the stomach. However, when the baby gets the drug (in tiny amounts incidentally) there is no protective layer on the drug, so it is immediately destroyed in the baby's stomach.

They are not excreted into the milk. Some drugs are just too big to get into the milk. Examples are heparin, interferon, insulin, infliximab (Remicade), etanercept (Enbrel).

The Following Are A Few Commonly Used Drugs Considered Safe During Breastfeeding:

Acetaminophen (Tylenol, Tempra), **alcohol** (in reasonable amounts), aspirin (in usual doses, for short periods). Most antiepileptic medications, most antihypertensive medications, **tetracycline**, codeine, nonsteroidal antiinflammatory medications (such as ibuprofen), **prednisone**, thyroxin, **propylthiourocil** (PTU), **warfarin**, tricyclic antidepressants, **sertraline (Zoloft), paroxetine (Paxil), other antidepressants, metronidazole (Flagyl), omperazole (Losec), Nix, Kwellada**.

Note: Though generally safe, fluoxetine (Prozac) has a very long half life (stays in the body for a long time). Thus, a baby born to a mother on this drug during the pregnancy, will have large amounts in his body, and even the small amount added during breastfeeding may result in significant accumulation and side effects. These are rare, but have happened. There are two options that you

might consider:

- Stop the fluoxetine (Prozac) for the last 4 to 8 weeks of your pregnancy. In this way, you will eliminate the drug from your body and so will the baby. Once the baby is born, he will be free of drug and the small amounts in the milk will not usually cause problems and you can restart the fluoxetine (Prozac).
- If it is not possible to stop fluoxetine (Prozac) during your pregnancy, consider changing to another drug that does not get into the milk in significant amounts once the baby is born. Two good choices are sertraline (Zoloft) and paroxetine (Paxil).

Medications applied to the skin, inhaled (for example, drugs for asthma) or applied to the eyes or nose, are almost always safe for breastfeeding.

Drugs for local or regional anaesthesia are not absorbed from the baby's stomach and are safe. Drugs for general anaesthesia will get into the milk in only tiny amounts (like all drugs) and are extremely unlikely to cause any effects on your baby. They usually have very short half lives and are eliminated extremely rapidly from your body. You can breastfeed as soon as you are awake and up to it.

Immunizations given to the mother do not require her to stop breastfeeding. On the contrary, the immunization will help the baby develop immunity to that immunization, *if anything gets into the milk*. In fact, most of the time nothing does get into the milk, except, possibly some of the live virus immunizations, such as German Measles. And that's good, not bad.

X-rays and scans. Ordinary X-rays do not require a mother to interrupt breastfeeding even when used with contrast material (example, intravenous pyelogram). The reason is that the material does not get into the milk, and even if it did it would not be absorbed by the baby. The same is true for CT scans and MRI scans. **You do not have to stop for even a second**.

What About Radioactive Scans?

We do not want babies to get radioactivity, but we rarely hesitate to do radioactive scans on them. When a mother gets a lung scan, or lymphangiogram with radioactive material, or a bone scan, it is usually done with technetium (though other materials are possible). Technetium has a half life (the length of time it takes for ½ of all the drug to leave the body) of 6 hours, which means that after 5 half lives it will be gone from the mother's body. Thus, 30 hours after injection all of it will be gone (well 98% will be gone) and the mother can breastfeed her baby without concern about his getting radiation. But does all the radioactivity need be gone? After 12 hours, 75% of the technetium is gone, and the concentration in the milk very low. I think that waiting 2 half lives is enough, for a material such as technetium. **But: Not all technetium scans require stopping breastfeeding at all (HIDA scan, for example). It depends on which molecule the technetium is attached to**. In the first few days, there is very little milk (though there is enough). In this situation it would be unnecessary for the mother to stop breastfeeding after a lung scan, for example. However, one of the most common reasons to do a lung scan is to diagnose a clot in the lung. This can now be done better and faster with CT scan, which does not require interrupting breastfeeding for even 1 second.

If you decide that interruption of breastfeeding is the best course to follow, then express milk for several days in advance (if you have advance warning about the test) and this can be fed via cup for a few days. Then while not breastfeeding, express your milk but don't throw away the milk. The radioactive tracer that is present in the milk decays and the radiation is gone in 5 half-lives. So, even for I^{131} used in thyroid scans (see below), the radioactivity of the iodine will be gone in 5 half-lives, so the milk can be used in 6 to 8 weeks (the half-life of I^{131} is about 8 days). Only occasionally is a radioactive scan so urgent that it cannot be delayed for a few days.

Thyroid scans are different. Radioactive iodine (I^{131}) is concentrated in milk and will be ingested by the baby and it will go to his thyroid where it will stay for a long time. This is definitely of concern. So, the mother will have to stop breastfeeding? No, because often the test does not need to be done at all. Differentiating postpartum thyroiditis from Graves' Disease (the most common reason for doing the scan in breastfeeding mothers) does not require a thyroid scan. Get more information from the clinic. If a scan needs to be done, it is possible to do a thyroid scan I^{123} which requires stopping for only 12 to 24 hours, depending on the dose given or technetium (see above). Don't forget to express milk in advance so the baby can get it instead of formula.

Questions? First look at the website nbci.ca or drjacknewman.com. If the information you need is not there, go to *Contact Us* and give us the information listed there in your email. Information is also available in **Dr. Jack Newman's Guide to Breastfeeding** (called **The Ultimate Breastfeeding Book of Answers** in the USA); and/or our DVD, **Dr. Jack Newman's Visual Guide to Breastfeeding** (available in French or with subtitles in Spanish, Portuguese and Italian); and/or **The Latch Book and Other Keys to Breastfeeding Success**; and/or **L-eat Latch and Transfer Tool**; and/or the **GamePlan for Protecting and Supporting Breastfeeding in the First 24 Hours of Life and Beyond**.

To make an appointment online with our clinic please visit www.nbci.ca. If you do not have easy access to email or internet, you may phone (416) 498-0002.