

## Sperm: Possession is Nine-tenths of Ownership

by Philip A. Belcastro, Ph.D.

“...a young woman called requesting us to freeze her boyfriend’s sperm. She alleged that the only available sample was inside of her because she had intercourse with him two days ago, and he passed away after that. This bizarre request raises many doubts among the members of our group regarding the ownership of the sperm sample. The sample, of course, belongs to the man that produces it, but once inside of her, can she dispose of this sample at her will? Can she sign a consent form to freeze that sample to be used in any procedure in the future?” (Latin America Network of Assisted Reproduction, 2008).

This case reflects the unanswered questions and legal-limbo of **posthumous sperm retrieval**  
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## Bite-away Home; Unwanted Pets

by Sara Salam, Ph.D.

You may have seen Roscoe the bedbug-tracking dog on TV who is trained to sniff out bedbugs in apartments. While Roscoe is cute, friendly and would never bite; bedbugs are just the opposite.

*What is a bedbug?*

**Bedbugs are insects that live by hematophagy, which means that they survive by feeding on the blood of humans and other animals.** There are several different types of bedbugs; some such as *Cimex lectularius* are well adapted to human

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# Sperm: Possession is Nine-tenths of Ownership

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**(PSR) which is when the wife, sexual partner or a family member orders a physician to milk sperm from a man that is incapacitated** (e.g. comatose) or dead. The first successful PSR was performed almost 30 years ago on a cadaver. The first publicly reported baby born from PSR occurred in 1998. In the past 30 years a few countries have banned PSR. A few countries such as the United Kingdom now require written consent by the donor for PSR. Obviously this would be drawn prior to the man's death; most likely via a will or living will and directive. A few countries allow PSR with *"implied consent"* if there is no written consent from the man. With implied consent the burden of proof is on the spouse or a family member to demonstrate that the deceased or incapacitated man intended to have children. **Most countries like the United States have no laws that regulate PSR.**

Without federal laws regulating PSR the United States by default has left the decision of "ownership" of a man's gametes (sperm), once it is taken from his body or leaves his body, to the lower courts to decide on a case-by-case basis. **Some U.S. courts have ruled that a man has no right or ownership to his sperm even if his sperm was obtained by deceit or a criminal act.** In one case a man

was assured by his sexual partner that she was incapable of becoming pregnant. The woman in fact was capable of becoming pregnant and when the child was born she sued the man for full child support. Despite the court acknowledging the woman used deceit to obtain the man's sperm--the court ruled in the woman's favor (*Stephen K. v. Roni L.*, 105 Cal. App. 3d 640, 164 Cal. Rptr. 2d 618 (1980)). In another case a thirty-four-year-old woman had intercourse with a fifteen-year-old boy and became pregnant. The woman was convicted of unlawful sexual intercourse with a minor—making her a convicted sex offender. The woman applied for Aid for Families with Dependent Children (AFDC) and in turn AFDC sued the 15-year-old boy for child support. **The court ruled that the fifteen-year-old boy, the victim of a sex offender, was financially liable for the child born as a result of his victimization** (*County of San Luis Obispo v. Nathaniel J.*, 57 Cal. Rptr. 2d 843 (Ct. App. 1996)).

The request of the young woman to freeze the sperm of her boyfriend raises an interesting gambit to PSR. In the United States the woman controls the destiny of a man's sperm once it is obtained by any means legal or otherwise, including via sexual intercourse and milking. Given current technology it would be possible for the woman to freeze all of her sexual partners' sperm for (realistically) twenty or more years. During those

ten years **she may choose to have one or more pregnancies from previous male partners, deceased husbands or teenage lovers.** Each sexual partner she obtained sperm from would be liable for child support—even if he was deceased.

If a woman's current sexual partner or husband had a low sperm count and was incapable of fathering a child—the woman could mix the sperm she collected ten years prior from a previous sexual partner with the sperm from her current sexual partner. The sperm cocktail from both men would be used to artificially inseminate the woman and accomplish a pregnancy. The mixing of viable donor sperm with the sperm of a man with a low sperm count is a common practice in artificial insemination dating back well over 100 years in America.

The woman may choose to use one or more of her previous male partners' sperm for *in vitro fertilization* (IVF) and create several embryos. The woman may choose to sell the embryos she had produced. **The woman may choose to freeze the embryos she had produced. Indeed embryos can be theoretically frozen and brought back for implantation 100 or more years later.** She may choose to destroy the embryos and would not need the father's consent. Twenty-five years after fabricating an embryo from her teenager lovers' sperm the woman could be diagnosed with infertility. The woman could have the embryo she produced from her teen-

age lover's sperm implanted in her uterus (if her infertility is not related to a functioning uterus) and have his child twenty-five years later. If the woman is incapable of a successful pregnancy or does not want to go through the rigors or risk of a pregnancy, she could hire a surrogate mother to birth the biological child of her and her teenage lover of 25 years past.

It is no wonder that the Latin America Network of Assisted Reproduction has many doubts regarding the ownership of sperm. As is often the case, technological advances precede the legal wisdom necessary to guide a society towards its chosen values and truths. The United States has avoided federal legislation regulating artificial reproductive technology (ART) issues and as a result is least capable of guiding fertility practitioners and assisted reproductive industries in the ethical retrieval, application and disposal of human genetic material. Today in the United States...possession is 100% ownership when it involves the destiny of a man's sperm.

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### Reference

Latin America Network of Assisted Reproduction. (Sep 22, 2008). Bioethics forum: post mortem insemination. ([http://www.redlara.com/ing/forum\\_default.asp?forumid=16](http://www.redlara.com/ing/forum_default.asp?forumid=16)).

# Bite-away Home; Unwanted Pets

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environments. Bedbugs are nocturnal, and feed at night when people are asleep. Because they are active at night, most people do not see bedbugs and may not know that they have a bedbug infestation in their home.

*What do they look like?*

Adult bedbugs are flat, oval-shaped and brownish-red in color. They have six legs and do not have wings; so they cannot fly. Bedbugs are big enough for you to see without a microscope or magnifying glass. In fact, an adult **bedbug looks a lot like an apple seed** (about 4-5 mm in length). If you see “apple seeds” moving across your bed at night, beware! Bedbugs lay eggs which are white in color and are as small as two grains of salt. They lay them in warm, dark places, such as the seams of a bed mattress and in the cracks on baseboards. Baby bedbugs (called nymphs) emerge from the white eggs. Nymphs are small and light beige in color. As nymphs grow they molt and shed their skin leaving an empty shell behind. These shells are easily seen and look like a “ghost” bug.

*How do I know if I have them?*

Bedbugs bite! Since they live off blood; bedbugs bite people and suck their blood to survive. If you

have bedbugs in your apartment, you and/or other members of your family will have noticed bites. The bites are very similar to a mosquito bite--red, raised and itchy (because they cause an allergic reaction).

**Bedbug bites last longer than the average mosquito bite and they often occur in rows of three** (as if the bug had breakfast, lunch and dinner on the person). About 50% of people do not get a reaction to a bedbug bite and so they may not notice that bedbugs have infested their home. Other things to look for are apple-seed shaped bugs crawling on or under the mattress, especially at night, and small dark red spots on bedding--these may be bedbug feces. If you think you have bedbugs, catch one or two to show to a professional for identification. Bedbugs can be confused with other common household insects.

*Where will I find them in my apartment?*

Bedbugs do not like sunlight and hide in dark places during the day. Mostly they stay near their feeding area, which means that they hide in mattress seams, the cracks of the bed frame, nearby furniture, carpets, baseboards, holes in the walls or any nook or cranny where they can fit. They live in groups, so if you find one, you will most likely find many in that same place. **One easy way to find bedbugs in your home is to lift the mattress at night and look under it with a flashlight**

(or a lamp near the bed)--this is their favorite spot. In the case of a very bad infestation you may actually see bedbugs during the day on the bed, on the floor or on furniture.

*Can I get sick from bedbugs?*

So far, there have been no cases of bedbugs spreading a disease from one person to another, which is good news. In some cases, people have an allergic reaction to the bites and may suffer from nausea. It is also possible to develop a bacterial disease if you scratch the itchy bites with fingernails. This is referred to as secondary infection, since in fact the bacteria are introduced into your body by you scratching the site, not by the bedbug bite itself. If you have bedbug bites, you can reduce your symptoms of itching and swelling by taking antihistamines and corticosteroids, either over the counter or prescribed by your doctor.

*Where did I get them?*

Bedbugs are not associated with dirt or filth. They are attracted to people by the carbon dioxide that people exhale and by body heat. Bedbugs live off fresh blood not waste. Having bedbugs in your apartment is not a sign that your home is dirty. **Bedbugs are transported to your home from an infested place such as a hotel or airplane seat or by neighboring apartments.** Bedbugs can move easily from one apartment to another along pipes,

under baseboards. They can also climb into suitcases and travel that way. They can also walk from one apartment to another or are carried into an apartment on furniture already infested (**do not pick up discarded furniture from the sidewalk**). They are not usually carried on clothing. Bedbugs are a global problem with even the best hotels and high-end apartment buildings being infested.

*How do I get rid of them?*

It is quite difficult to get rid of bedbugs and to avoid bites. Conventional insect repellants do not deter bedbugs. They are also resistant to many of the household pest sprays. In addition, **many insecticide sprays are toxic--you should not use them unless you know what you are applying and what the risks are in using the spray.** It is better to call a company that specializes in getting rid of bedbugs--they have better and hopefully safer methods for exterminating these pests, such as liquid nitrogen and alcohol-based sprays. These companies can charge a lot of money; so shop around. Make certain that they are licensed to treat bedbug infestations. You can ask to see a copy of their license or check directly with DEC by calling (718) 482-4994 or visiting <http://www.dec.state.ny.us/website/dshm/pesticide/appman.htm>. Do not throw out furniture, clothing or bedding unnecessarily--bedbugs can be eradicated, with

the correct treatment, which includes washing and drying clothing, toys and bedding at high temperatures (1200F minimum), clearing out clutter, vacuuming well, and disposing of newspapers and other papers and cardboard boxes in which bugs can hide. It may be necessary to dispose of your mattress, but a professional will tell you whether to or not. **The website [www.nyc.gov/health](http://www.nyc.gov/health) has a bedbug fact sheet with tips on how to get rid of bedbugs and who to contact.** NYC has a bedbug eradication program too. If you have bedbugs and your landlord is not taking care of them, call 311 and report your problem! You will be given advice and assistance.

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#### **Internet Resources:**

[www.hsph.harvard.edu/bedbugs/#cause](http://www.hsph.harvard.edu/bedbugs/#cause)

[www.medicinenet.com/bed\\_bugs/article.htm](http://www.medicinenet.com/bed_bugs/article.htm)

[www.webmd.com/a-to-z-guides/bedbugs-topic-overview](http://www.webmd.com/a-to-z-guides/bedbugs-topic-overview)

[www.ca.uky.edu/entomology/ent-facts/ef636.asp](http://www.ca.uky.edu/entomology/ent-facts/ef636.asp)

## Tired of Being Tired?

*By Lesley L. Rennis, MPH, Ed.D.*

Each morning 22-year old Alicia hits the snooze button twice before she drags herself out of bed into the shower and dresses for her part-time job. On the way to work she stops for a large cup of coffee and arrives 15-20 minutes late. After work, Alicia rushes to class. On most days she's so exhausted that even the 20-ounce Pepsi and bag of chips fail to keep her awake during class.

Like Alicia, many college students are chronically tired. According to a poll by the National Sleep Foundation (NSF), more than half of the country's young adults report **"waking up feeling unrefreshed"** (55%), and **the percentage of young adults suffering from significant daytime sleepiness (33%) is comparable to that of shift workers (29%).** Many students are so accustomed to not feeling their best that they do not give a second thought to their lack of energy. Armed with knowledge of what your body needs and a few simple tips; you can restore your energy and give yourself the boost you need to make it through the day and make the day successful.

**Step #1-Sleep Well.** A good night's sleep is one of the most

crucial things you can do for your body. **Lack of sleep makes you less mentally aware, more fatigued and irritable, causes you to eat more, and places you at higher risk for accidents** (Roizen & Oz, 2005). When you sleep your body recharges and restores itself. Without this opportunity to rejuvenate, the body cannot perform at its peak. **College students are among the most sleep deprived people in the country** (<http://www.sciencedaily.com/releases.htm>). Staying up late, studying for exams, working long hours, partying and excessive drinking all interfere with sleep patterns of the typical college student. In addition, many students report being unable to sleep due to financial worries and thinking about their futures (Miller et. al., 2008). Often, students are unaware of just how much their lack of sleep affects their performance. While there is variability between each of us in the amount of sleep we need; the **National Sleep Foundation recommends that young adults get 7-9 hours of sleep a night.**

Tips for Sleep Well:

- *Maintain a regular bed and wake time schedule, including on the weekends.*
- *Establish a relaxing bedtime routine.*
- *Create an environment that is conducive to sleep; comfortable, quiet, dark and cool.*
- *Keep distractions, such as computers and televisions, out of the bedroom.*

**Step #2-Eat Well.** Processed food is food converted from its raw, natural state into other forms of commercial consumption and is linked to weight gain. **Little attention has been given to the link between processed food and energy levels.** Chemicals added to processed food make it more attractive, marketable and increase its shelf-life. However, these same chemicals can be toxic to your body. They build up in your cells, making them function less efficiently. Unprocessed food (food that is as close to its raw and natural state as possible) contains live, active enzymes, essential vitamins and minerals that help you digest your food more efficiently; improving your body's overall functioning, health and energy level (<http://www.fresh-network.com/acatalog/articles.html>). **Healthy People 2010 recommends eating at least two servings of unprocessed fruit and three servings of vegetables a day.**

Tips for Eating Well:

- *Eat a salad a day.*
- *Snack on cucumbers, carrots and fruits instead of junk food.*
- *Have a fruit salad for breakfast.*
- *Drink real fruit smoothies and fresh fruit and vegetable juices.*

**Step #3-Move Well.** When you are low on energy, the last thing you want to do is exercise. But research shows a good workout can make you

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more alert, speed up your metabolism and energize your body for the day ahead. A recent study revealed that **exercise acts directly on the central nervous system to increase energy levels and reduce fatigue, allowing people to feel more energetic and competent** (Puetz, et. al., 2008). People who exercise are also less likely to be depressed or anxious--both of which rob you of energy. **According to the Centers for Disease Control, you need both aerobic and muscle strengthening exercise to help improve your overall health and increase your energy level.**

Tips for Moving Well:

- *Incorporate 2.5 hours of moderate intensity aerobic activity (e.g., brisk walking) into your weekly schedule.*
- *Strength-train 2 or more days per week.*

No need to drag through the entire day feeling like the 'morning after'. A good night's sleep; brisk walk to the grocery store for some fresh fruits and vegetables after a 30-minute light workout and...you will wake up primed for another successful day.

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