

## Ray Emery - Avascular Necrosis

Former National Hockey League Ottawa Senator, and Philadelphia Flyer, and Kontinental Hockey League Atlant Moscow goaltender Ray Emery is making a comeback with the Anaheim Ducks following hip surgery to repair avascular necrosis of his femoral head. This is the same condition that ended Bo Jackson's dual career in the NFL and Major League Baseball.

Emery's hockey career has been a rollercoaster at best. Emery was outstanding in the 2006-07 playoffs leading the Senators to the Stanley Cup finals but by the following June was released by those same Senators due to questionable behaviour on the ice and off. The 2008-09 season found Emery playing in Russia in the KHL, a campaign that was capped by the Emery/Unidentified Russian athletic trainer fight behind the team bench. The '09 season found Emery between the pipes with the Philadelphia Flyers but by March 2010 the Flyers organization was announcing that Emery's season was over due to a hip injury that would require surgery to repair. Emery became an unrestricted free agent and in February 2011 signed with the Anaheim Ducks after the successful rehabilitation of his hip.

Avascular necrosis or AVN is a term used to describe a condition of massive necrosis, or cell death, of bone and bone marrow occurring as the only, or the predominant abnormality of that

condition. Bone necrosis can occur as a result of severe osteoarthritis, fractures, tumours, infections and other bone disorders but AVN is distinct due to the amount of destruction that can occur. The events leading up to AVN are not completely understood but the final step in the process includes the lack of or complete stop of blood flow to the bone. One of the mechanisms is direct trauma to the blood vessels supplying the area. The hip is unique



in that it has a very limited secondary blood flow to the femoral head. Other joints could have a couple of vessels occluded but still maintain an adequate supply but the hip does not making it more susceptible

to AVN. The trauma in this case could be due to the inherent demands on the hip by a professional butterfly style goalie and the trauma that results due to those positions.

The main cause of concern with AVN of the hip is the lateness with which it is usually detected. In most cases by the time AVN is caught, there is already considerable damage making less invasive repairs impossible. In Emery's case, the early detection led to the ability to have a bone graft and better outcome. In the case of Bo Jackson, the amount of destruction led to a total hip replacement. Remarkably, Jackson was able to return to Major League Baseball but his once blazing speed on the base path was gone and he retired during the strike of 1994-95.

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## Puck Problems

The Toronto Maple Leafs learned that there was going to be a shortage of pucks due to a rubber tree disease. By the time they ordered their pucks, the ACME Puck Company was all out. The Leafs had to call the Senators, Sabres and Penguins to see if they would share some of their boxes of pucks which, surprisingly, they agreed to. The Senators had 14 boxes; Sabres 16 boxes; and Penguins 18 boxes. If each team had an equal number of boxes at the end and the Leafs paid \$1800 in total, how much was each team paid?



## Liver Disease and Hepatitis A, B, and C

Although liver disease is commonly linked to drug and alcohol abuse, there are over 100 known forms of liver disease. Liver disease can affect everyone from infants to older adults. One of the known causes of liver disease is viral infection known as viral hepatitis. Certain viruses are known to specifically target the liver and the most common world wide are hepatitis A, B, and C (or HepA, HepB and HepC). According to the Liver Disease Foundation HepC is the leading cause of liver transplants in Canada.

### HepA

HepA can be contracted by contact with an infected person, or by eating/drinking HepA contaminated food or water. HepA is found in the stool of an infected person, so direct contact, (we hope!!), is unlikely. However, if an infected person working in food preparation uses the washroom and doesn't wash his/her hands, the virus can spread to your food.

Other methods of spread include eating

raw or undercooked seafood/shellfish from water that may be polluted by sewage or by eating food such as salad greens that have been rinsed by contaminated water. This is why we often like to think of HepA as a traveller's disease, but if a restaurant has an improper food preparation

### The Liver



environment then the spread of HepA can occur. Sexual contact or the sharing of drug paraphernalia with an infected person may also increase your risk of infection.

### HepB

HepB is mainly spread through contact with an infected person's blood, other bodily fluids and/or unprotected sexual contact. HepB is mainly found in blood, semen and vaginal fluid as well as saliva although the virus concentration in saliva is 1000 to 10000 times less than what is found in the blood.

In those industries such as tattooing, manicure/pedicures or medical/dental that rely on sterilization equipment to clean reused instruments can potentially spread the virus if the equipment malfunctions. Although rare, providing first aid in an unprotected manner (no gloves or mask) can increase your risk of exposure. Sharing personal hygiene items such as nail clippers, toothbrushes or razors can increase your risk as well.

### HepC

HepC is spread through blood to blood contact – meaning that an infected person's blood has to get into your bloodstream in order to contract HepC. This may seem unlikely but HepC is very common worldwide and may be spread by sharing drug needles, improperly sterilized equipment (as indicated above), sharing personal hygiene items or having a blood transfusion or receiving blood products prior to July 1990.

Some famous individuals contracting HepC include Pamela Anderson of Baywatch fame, David Crosby of Crosby, Stills, Nash and Young and Rolling Stone guitarist Keith Richards.



## *The Funny Bone*

### Alcohol Lecture

An elderly man is stopped by the police around 1 a.m. and is asked where he is going at this time of night.

The man replies, "I am going to a lecture about alcohol abuse and the effects it has on the human body".

The officer then asks, "Really? Who is giving that lecture at this time of night?"

The man replies, "My wife."



## Parkinson's Disease

Parkinson's disease is a neurodegenerative (brain degeneration) disease that particularly affects the neurotransmitter dopamine's neurons in a particular part of the brain that controls movement patterns.

Numerous attempts have been made to find the cause of Parkinson's and find a cure but to date neither has been successful. It affects 1-2% of the over 50 year old population in the US – approximately 1.5 million people. A couple of famous people afflicted with this terrible disease include Michael J. Fox, and Muhammed Ali.

### **Health Canada Alert**

Health Canada has issued an advisory recall, as of February 2011, for Triad Group's (a division of Bowers Medical Ltd.) Sterile Lubricating Jelly. These products are used to lubricate medical devices such as catheters and may be a single sterile product or part of a kit. The voluntary recall is all lots of Sterile Lubricating Jelly back to 2007 with the worry that the product may not have been sterilized properly and may cause an infection. Health Canada has not received any reports of adverse reactions or infections related to the use of this product.

See [http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/2011/2011\\_26-eng.php](http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/2011/2011_26-eng.php) for details on the products involved.

## History of Parkinson's Disease

Parkinson's Disease was first described by English physician Dr. James Parkinson in his work entitled *An Essay on the Shaking Palsy* (1817). In this short essay Parkinson wrote about "Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forwards, and to pass from a walking to a running pace: the senses and intellect being uninjured."

Four decades later Dr. Jean-Martin Charcot added rigidity to Parkinson's excellent clinical description and attached the name Parkinson's Disease to the syndrome. [www.parkinson.ca](http://www.parkinson.ca)

## Parkinson Risk and the Use of Amphetamines

A study slated for presentation at the American Academy of Neurology conference in April, suggests an increased incidence in those individuals taking prescription amphetamines and the development of Parkinson's disease (PD). The study showed that those people taking amphetamines, particularly Benzedrine and Dexedrine, at any point in their lives were 60% more likely develop PD in the future. Statistics show that approximately 3% of people over the age of 65 is affected by PD. The study had surveyed almost 67 000 people about their use of amphetamines in the 1960's and early 1970's and followed up an average of 38.8 years later.

Amphetamines are generally prescribed as a weight loss supplement, usually when all other methods for weight loss have failed. Amphetamines directly affect the release and absorption of dopamine, a key neurotransmitter implicated in the development of PD.



## Mental Environmental



Canadians use massive amounts of water every year. One solution to ease the burden on the water supply is the lowly rain barrel. Rain barrels can cost under \$100 including the diverter (used to divert the water from the downspout) and can hold up to 200L of water or more. As a general rule – 1mm of rainfall per square metre of roof equals approximately 1litre of water in the rain barrel. The average amount of rainfall in Toronto from April to September is 425 mm – so for every square metre of roof there is 425 L going into the barrel. The water in the rain barrel can be rigged to water our gardens and/or lawns saving water from the main supply.

## Brown Rice Versus White Rice

So which is better for you? Is one better for the environment?

Brown rice is not only the better choice nutritionally but it is also better for the environment. Rice goes through several processes after harvest before its ready to be cooked. After harvest, the seeds are milled to remove the outer grain husks leaving the brown rice. To get the white rice, the brown rice has the germ and the inner husk or bran removed. The grain is then polished with glucose (a simple sugar) or talc. The extra processes remove a lot of the rice's nutrients which are then reinfused synthetically and called fortified white rice!! This is a similar process to brown and white bread.

The nutrient loss is substantial in the white rice vs. the brown rice as well as the dietary fibre. Some estimates suggest that the dietary fibre in white rice is only a quarter of that found in the brown.

The environmental benefit happens in the energy

savings with brown rice because you don't have the extra processing as well as the extra costs involved in chemically reinfusing the very nutrients you have just removed!! Brown rice, however, does take longer to cook so some energy is lost there but this can be mitigated by pre-soaking the rice and by using less water with the pot lid on to keep the steam in. The steam also helps speed up the cooking process and save more energy.

[www.greenlivingtips.com/](http://www.greenlivingtips.com/)

### Brain Teaser Answer

Since there were 48 boxes in total, each team received 12 boxes. The Leafs received 2 boxes from the Senators, 4 boxes from the Sabres, and 6 boxes from the Penguins for a ratio of 1:2:3. Since the money had to be paid out in the same ratio, the Senators received \$300, Sabres \$600, and the Penguins \$900. Of course Toronto had to pay Ottawa HST of \$234 but that was billed later!!!



## Services

*Chiropractic  
 Massage Therapy  
 Acupuncture  
 Kinesiology  
 Sports Specialists  
 Soft Tissue Therapy  
 Naturopathic Medicine  
 Diagnostic Imaging Services*