

PROBLEMS ASSOCIATED WITH USE OF THE HYPERBARIC CHAMBER IN SPORTS:

August 23,1996

[Update; Nov. 15,1996](#)

The following report was sent to all 26 General Managers in the N.H.L. in January 1995

This past season the Vancouver Canucks were using a hyperbaric (oxygen tank) chamber as part of their training program. At the beginning of the season this chamber was used primarily for speeding up recovery time of injured players. Very soon after this the Canucks began to use it on uninjured players. This is when the problems began.

The Canucks management and training staff had been in touch with myself in mid August of 1993 about trying out our ionization system for a period of two weeks (this try out was canceled two days before we were to start). In our meetings before this, the Canucks management had asked me if our system was similar to their hyperbaric system. I told them it was but I was not about to tell them their system could have major drawbacks. (It would have looked like we were trying to put down their hyperbaric system over ours.) In failing to warn the team at the time I must take partial responsibility over the misuse of the hyperbaric system. Thinking the Canucks had a system similar to the one we were proposing there was no need for them to try our system. They began putting players in the chamber who had no injuries, hopefully to improve endurance, reaction time and balance. Initially this seemed to be the case as the Canucks won 7 of 8 games since the beginning of the season. At this time I could not say anything about the problems until they began to surface.

How does the hyperbaric system work ? The chamber is sealed from the outside atmosphere and pressure is increased on the inside of the chamber. The occupant inside the chamber puts on a breathing device that supplies him with 100% pure oxygen. If the player has an injury, the oxygen together with the increase in pressure pushes the oxygen deeper into the injured area. Recovery time can be cut in half for the injured player. I do not dispute these claims.

Why would there be problems using the hyperbaric system? The system is totally cut off from the outside atmosphere. A natural ion count of 5000 ions per cubic centimeter can be measured in nature. This count can fluctuate but no matter where we go, there are ions. In the hyperbaric tank the ion count would be zero. There is no natural or artificial way to produce ionization in the chamber since the corona discharge from an ionizer would cause the oxygen to ignite. Every human being must have ions to survive. It is this reason why the hyperbaric system is so dangerous.

The Russian ion scientist Tchijewsky tried raising mice, rats, guinea pigs, and rabbits in totally de ionized air. Within two weeks almost all of them had died. Despite the fact the autopsies proved they had died for a variety of reasons - fatty

liver, kidney failure, heart degeneration, and , among other ills anemia - Tchijewsky concluded that the real cause of death was the animals' inability to utilize oxygen properly.' An organism receiving the cleanest type of air for breathing is condemned to serious illness if the air does not contain at least a small quantity of air ions."

Tchijewsky's colleague D.A. Lapitsky tried raising small animals in air depleted of oxygen. As they were about to die of suffocation he added neg-ions and found that "animals already near death from asphyxiation began to feel better, sat up sniffed the air, and began to run around the chamber. Their respiration frequency increased. Switching off the ionizer again brought them to the verge of asphyxiation." Lapitsky decided the traditional belief that oxygen alone was the sole prerequisite for the creation and sustenance of life had "demonstrated to be false." Or as Tchijewsky had said, "Death of animals in [de ionized] air must be attributed to the absence of aero ions of oxygen essential to the life activity of an organism." More simply put, without ions we couldn't absorb oxygen in the quantities needed to live. And the fewer ions there are, the lower the efficiency of our minds and bodies.

Tchijewsky also discovered increased performance in athletes using negative ion generators in the late 1940's.

In late November side effects from lack of ionization in the players who were using the hyperbaric chamber for injuries became apparent. Two of these players were Gino Odjick and Pavel Bure. Both had come down with flu symptoms and respiratory problems. The Canucks doctors were unable to find the cause of the respiratory problems. I faxed Pat Quinn on Dec. 16, 1993 with an explanation to these problems and background information on problems with the Hyperbaric chamber. He chose to continue using the chamber. In January I talked with Bruce Newton of the Players Association. I explained the problems with the hyperbaric system but he was unable to help me. "The team and the teams doctors were responsible for any training system and the Players Association had no say over those systems."

The fans of Vancouver began to call the Canucks "TEAM SCHIZOPHRENIC". The Canucks were playing poor at home and great on the road. I contacted Pat Quinn by fax again previous to the playoffs to warn him again. He chose to ignore my advice again. I talked to one of the Canuck players just as the playoffs were starting. He confirmed most of the team was using the hyperbaric tank to increase their play. Word that this news leaked to me must have gone back to management. At this point management gave the doctors and players permission to speak to the media about how the system worked. (The plan was to bury any controversy before it was started).

Why did the Canucks do so well in the playoffs? First, the playoffs took them away from the hyperbaric chamber for extended periods. Second, the brain under environmental stress from increased positive ions or lack of ions produces hormones and chemicals to deal with this stress. The two main hormones released are melatonin and serotonin. Serotonin is increased and fed into the blood stream. The increased serotonin triggers the release of adrenaline which

allows the body to work through the stress. Adrenaline is not quickly renewed as are other chemicals in your body. If a body produces too much serotonin for long duration's, the adrenaline gets used up and the chemical system in the body is unbalanced. This is what was happening with these players. A list of side effects from increasing the serotonin levels in your body for a long period of time are as follows:

Anxiety, nervousness, tremors, sweating, dizziness, lightheadedness, dry mouth, upset or irritated stomach, appetite loss, nausea, vomiting, diarrhea, stomach gas, rash and itching.

Less common side effects include changes in sex drive, impotence, abnormal dreams, difficulty concentrating, acne, hair loss, dry skin, chest pains, allergy, runny nose, bronchitis, abnormal heart rhythms, bleeding, blood pressure changes, headaches, fainting when rising suddenly from a sitting position, bone pain, bursitis, twitching, breast pain, fibrocystic disease of the breast, cystitis, urinary pain, double vision, eye or ear pain, conjunctivitis, anemia, swelling, low blood sugar, and low thyroid activity.

In addition, many other side effects affecting virtually every body system have been reported. They are too numerous to mention.

All side effects mentioned are also experienced from the pill Fluoxetine Hydrochloride (PROZAC). Prozac is an antidepressant drug and works on increasing serotonin levels in the body. It is the natural cortisone levels in the body that are triggered by the serotonin. This added adrenaline gives the personality a boost. Long term studies on Prozac and other antidepressants that work on increasing serotonin are finding most patients on these drugs are worse off after treatment than before treatment. The Food and Drug Administration (F.D.A.) has never in their history had as many problems with a drug as they have had with these forms of antidepressants.

Side effects from positive ions winds (such as the Chinook wind in Calgary and the Santa Ana winds in southern California) compiled by a Swiss meteorological report in 1974 are as follows:

Physical side effects: Body pains, sick headaches, dizziness, twitching of the eyes, nausea, fatigue, faintness, disorders in saline (salt) budget with fluctuations in electrolytical metabolism (calcium and magnesium; critical for alcoholics), water accumulation, respiratory difficulties, allergies, asthma, heart and circulatory disorders (heart attacks approx. 50% higher) low blood pressure, slowing down in reaction time, more sensitivity to pain, inflammations, bleeding embolisms of the lungs, and thrombosis.

Psychological side effects: Emotional unbalance, irritation, vital disinclination, compulsion to meditate, exhaustion, apathy, disinclination or listlessness toward work (poor school achievement), insecurity, anxiety, depression (especially after age forty to fifty); rate of attempted suicide about 20% higher, larger number of admittance's to clinics in drug cases.

In over 90 years since ions were discovered, no side effects have ever been found from negative ions.

The side effects from Prozac are similar to the side effects from positive ions. That is because positive ions or lack of ions, increase serotonin levels in the body the same as prozac does. Increased serotonin has recently been associated with many forms of cancer.

It is interesting to note that high carbohydrate meals or high protein meals also increase serotonin in the body. The Pittsburgh Penguins training staff have been using protein drinks and carbohydrate drinks known by their brand names of Plex and Blast for a number of years now. How much has this affected Mario Lemieux's health? Could it have caused his recent health problems? During the recent lock-out Mario Lemieux has said he is feeling better than he has in years. His serotonin levels have returned to normal without these carbohydrate and protein supplements.

The Toronto Blue Jays also use Plex and Blast. Before the Baseball strike Toronto a two time world series champion in 1992 and 1993 was trailing most of the league in 1994. A person reliant on serotonin will at first experience a high for a few years followed by a low that is virtually impossible to get out of. Adrenaline does not renew itself in days, it takes months or even years.

The hyperbaric chamber of the Vancouver Canucks is even more damaging than Plex and Blast. There are no ions in the chamber nor are any being breathed in with the oxygen mask. What proof do we have that the team was affected by this Hyperbaric chamber other than a few symptoms reported by a few players. Let the 1993 - 1994 stats speak for themselves:

Vancouver Canucks 1993/94 POWER PLAY RECORD

**Home Power Play Record 24th out of 26 teams
Road Power Play Record 1st out of 26 teams**

How many teams have ever finished with the number one power play on the road, and one of the worst at home.

Vancouver Canucks 1993/94 PENALTY KILLING RECORD

**Home Penalty Killing Record 24th out of 26 teams
Road Penalty Killing Record 3rd out of 26 teams**

Again we see Vancouver as one of the best penalty killing teams on the road and one of the worst at home.

As you can see something was definitely wrong at home - the hyperbaric chamber.

The Vancouver Canucks have the ability to correct the situation themselves. If the hyperbaric system is to be used for any good it should only be used for its original purpose, to quicken recovery time from injuries. By installing the negative ion generators in their possession in the dressing room and keeping their healthy players out of the hyperbaric chamber we might see an improved team in the future. From my knowledge of the body and its reaction to lack of ions I personally would not recommend use of the hyperbaric chamber on injured players.

The Vancouver Canucks can not be blamed for problems associated with the hyperbaric chamber. These chambers have been used for decades with scuba divers and deep sea divers around the world. It never occurred to us that there were problems with ionization inside these chambers until we heard the Vancouver Canucks were using this system, and we did further research. To theorize there could be a problem is quite different from the reality of most problems. Yet in this case the theory proved correct. This hyperbaric chamber should not be looked at as a failure though. The information obtained from the players, their side effects and overall statistics verify the hypothesis's of a very important group of scientists around the world. Questions that went unanswered for over four decades have been answered. Does zero ionization have an effect on people? Is this effect immediate? These questions may not seem important but they deal with the prerequisite of all life as we know it. All life including man or should I say especially man, must have ionization to survive and function properly.

This hyperbaric chamber may have cost the Vancouver Canucks some money but the knowledge gained by it's use must be looked at as invaluable to science and to sports science. I do not in any way judge the Vancouver Canucks for trying this system, quite the opposite in fact. I commend the team for trying something different.

Update, August 23, 1996:

After receiving this report, Glen Sather, General Manager of the Edmonton Oilers Hockey Team, called me to tell me he agreed with the information provided in this report. This information from Mr. Sather surprised our contact at the hyperbaric chamber distributor who informed me that Mr. Sather had one of the leading specialists in hyperbaric medicine working for him in Edmonton.

In March 1996 we contacted the Canadian National Defense Department, Defense and Civil Institute of Environmental Medicine for joint research with (DCIEM), the hyperbaric chamber company and ourselves. It was also at this time that we had contacted the hyperbaric chamber company to inform them of the research and continuing problems with these chambers and the other teams that were using them. The statistics for a number of teams now using the

chamber were looking similar to the Vancouver Canucks. As the hyperbaric chamber company stock dropped with poor showings in the Pro Sports teams now using these chambers, the directors of the company began to resign in groups including our contact with that company. It is not known whether these resignations were due to our information or the stock collapse or the poor performance.

Before we contacted the DCIEM they had no knowledge of the problems with the hyperbaric chamber since it had been used for many years in saturation diving, mine workers, and caisson workers. I then explained that the changes we were seeing were changes primarily in endurance, balance and reaction time. These changes are not visual changes, I am talking about 22 millisecond changes in reaction time, less balance and less endurance... .In Pro Sports 22 milliseconds can mean a big difference to a players or goal tenders game. These changes are probably happening with these other occupations but will not show up as anything more then lethargic workers or depression. I would like to see research in this area of hyperbaric work and resiratory difficulties, other related health problems, serotonin production in the brain, and cancer rates in these workers. The operational medicine specialists at the DCIEM is now looking into this research.

The following Professional Teams are now using the Hyperbaric Chamber; In the N.H.L. Vancouver Canucks, Philadelphia Flyers, San Jose Sharks, Winnipeg Jets (Phoenix), Detroit Red Wings, St. Louis Blues and New York Rangers. In the N.F.L. the Dallas Cowboys, San Francisco 49'ers, and the New York Jets. In the N.B.A. The Seattle Supersonics, New York Knicks, and the Vancouver Grizzlies. In the C.F.L. the B.C. Lions.

Not all of the above teams will experience the long term problems that the Vancouver Canucks have had. It depends on how the team uses the chamber. If the team uses the chamber only for injuries, few problems may arise. If the team chooses to place all players in the chamber everyday then you will see major problems down the line.