

Cell Phone Technology: Public Health Facts & Concerns

• **Why do many residents oppose cell phone service in New Denver?**

Concerned local citizens are not anti-technology. We have found ample scientific evidence of damage to health by cell phones and cell phone antennae. We are insistent that Health Canada fulfill its mandate to **protect public health**. We believe that if there are ANY significant indications of risk to human health, manufacturers **MUST** be held accountable and required to re-tool their technology until **PROVEN** safe beyond any significant doubt. We believe these requirements have **NOT** been met.

• **How can invisible cell phone signals possibly hurt me?**

You wouldn't stick your hand in a microwave oven, nor would you have an X-ray without wearing a lead shield. A microwave oven operates in the 2,450 megahertz (MHz or 2.4 Gigahertz) frequency range, as do digital cordless phones, which operate between 2-5 GHz, but at a much lower power level. A cell phone also operates in the microwave range at a frequency (800-1,900 MHz) shown by scientific studies to cause damage to the cells of living organisms.

• **Yes, but doesn't Health Canada protect me?**

Health Canada also told us thalidomide, asbestos and the blood supply were safe. Doctors once said tobacco was safe.

Canada has guidelines only and they are less stringent than those in other countries. Switzerland and Salzburg, Austria, for instance, have proposals to regulate exposure levels to electromagnetic frequencies (EMF) hundreds of times lower than US and Canadian standards.

Health Canada's Safety Code 6 provides guidelines for exposure based upon heating in the 3 KHz to 300 GHz range. It assumes that exposures below the extreme levels required to heat human skin or tissue have no biological effect; studies have shown this assumption to be false.

"Health Canada claims if it can't cook you, it can't hurt you," says Victoria, B.C.'s Walter McGinnis (one of a handful of licensed electricians who understand electromagnetic fields well enough to eliminate them from household wiring). "It's like saying cigarettes aren't dangerous unless they burn you."

In order to determine the safety of cell phone transmission in a real life setting, Health Canada should be conducting full scale monitoring of the exposed populations. Given their repeated statements that there are no adverse health effects from such devices we believe that there is little if any monitoring being conducted at this time.

Scientists and physicians from 10 countries who signed the **Salzburg Resolution** on Mobile Telecommunication Base Stations (June 7-8, 2000) recommended that mobile phone tower **emissions should be 9,000 times LOWER than the current ICNIRP Guideline** value for 900 MHz and 1,800 MHz radiation. (**ICNIRP** stands for – **I**nternational **C**ommission on **N**on-**I**onizing **R**adiation **P**rotection.) The ICNIRP Guideline was written in 1996 and can be considered outdated due to both technology changes and new research findings.

New cell phones do more than act as phones – they have software which makes more power available. This creates the possibility that heating effects will be experienced by the phone user in addition to the direct impact upon the cells.

The International Association of Firefighters in 2004 passed a resolution opposing the placement of cell masts on fire halls due to concern for the safety of their members who spend many hours in the buildings while on call.

• **So what are the health risks of using cell phone technology?**

Many studies are now confirming the **high cancer risks of people exposed** to microwaves from cell phone use, as well as cell phone base stations and transmitters around the world.

B. Blake Levitt, author of *Electromagnetic Fields* and award-winning journalist who has specialized in medical and science writing for nearly two decades, says that when it comes to cell phones, “a worse frequency could not have been chosen for the human anatomy.” (Levitt is a member of the American Medical Writers Association, the National Association of Science Writers, the New York Academy of Sciences, and the Bioelectromagnetics Society.)

Studies show an increase in heart attacks and heart disease, nausea, headaches, fatigue, dizziness, insomnia, irritability, depression, aches and pains and increased risk of cancer, and rare tumours on the outside of the brain more than doubled among cell phone users. “There are 66 epidemiological studies showing that electromagnetic radiation across the spectrum increases brain tumours in human populations,” declared Dr. Neil Cherry, a biophysicist and expert on the subject, in 2001. (Associate Professor of Environmental Health at Lincoln University, New Zealand.) Two of those studies are for particular brain tumours due to use of cell phones.

A 10-year study in the German city of Naila found that the proportion of newly developed cancer cases was significantly higher among those who had lived during the past 10 years at a distance of up to 400 metres from the cellular transmitter site. Five years after the transmitter was installed and operating, the **relative risk of getting cancer had tripled** for the residents within 400 metres.

Unrelated studies in Sweden and Britain found that prolonged exposure to radiation emitted by mobile handsets (cell phones) and neighbourhood relay towers can destroy cells in the parts of the brain responsible for memory, movement and learning. Biologist Roger Coghill, member of the UK Health Department’s mobile telecommunications health research program, became a long-standing advocate for health warnings to be affixed to cell phones after he found that cell phone transmissions damage the ability of white blood cells to ward off infectious disease by disrupting the immune system’s electromagnetic communications.

A study by Dr. Peter French found unequivocally that “cells are permanently damaged by cellular phone frequencies.” This cellular damage, French noted, is maximized at low dosage — and “**inherited unchanged**, from generation to generation.” (Dr. French holds a PhD in cell biology, is past president of the Australian and New Zealand Society for Cell and Developmental Biology and past board member of the Federation of Australian Science and Technology Societies.)

Radiofrequency radiation (RFR) and microwaves, including cell phone radiation, are genotoxic (**damaging to DNA**), as shown by many independent studies published since the first reports in 1959.

- **Cell phones and children:**

According to Dr. Cherry, children are highly vulnerable and likely to exhibit symptoms from using cell phones. Children living near three TV and FM broadcast towers in Sydney, Australia had **more than twice the normal rate of leukemia.**

In **January, 2005**, Britain's National Radiological Protection Board advised parents not to let children under the age of eight use cell phones, after four European studies suggested impaired cognitive function, cell damage and probable increases in cancer as a result of frequent cell phone use.

On **December 8th, 2000**, the German Academy of Paediatrics issued a statement advising parents to restrict their children's use of mobile phones in view of "special health risks" associated with their growing bodies.

In New Zealand, cell phone towers are prohibited on school property because of possible health effects: learning disabilities, cancer, leukemia, DNA damage, blood disorders, brain tumours and electrical sensitivity, according to *EMF Health Report Mar./Apr. 1995*.

Dr. Gerald Hyland (PhD in theoretical physics, Associate Fellow of the Dept. of Physics at the University of Warwick, UK, and Executive Member of the International Institute of Biophysics) and other MDs believe that cell phone's deep penetration into children's brains and the resulting disruption to the subtle electronic exchanges between brain cells could cause kids to lose the ability to concentrate and remember, making it much more difficult to learn. In addition, a cell phone call lasting just two minutes can open the 'blood-brain barrier,' allowing toxins in the bloodstream to cross the blood vessel gateway into the skull and attack brain cells.

- **But isn't the scientific community divided on the issue?**

Only if you accept the telecommunications industry's assertion that studies demonstrating any health effects at all are 'junk science.' This convenient tactic is what is known as 'cherry-picking' scientific data to suit an agenda. In many cases, the industry has funded studies directly, thus biasing the outcomes.

Even the more conservative voices have raised the issue of applying the **precautionary principle**, which states that the burden of proof is on the manufacturer to prove the product is safe. Until such time, this principle requires health regulators to err on the side of safety. Thousands of doctors, scientists and other medical professionals have urged governments to exercise the precautionary principle in protecting their populations.

Sir William Stewart, chair of the British group Independent Experts on Mobile Phones (IEMP), while concluding that the science was "inconclusive" nevertheless urged the government to apply the precautionary principle and issue a warning to parents to restrict children's use of cell phones. Stewart is a biologist by training, President of the Royal Society of Edinburgh and Chairman of the Microbiological Research Authority, and was a scientific adviser to the Prime Minister and Government from 1990-95. The IEMP was commissioned by the British government to study the issue.

- **Vested interests:**

The cell phone industry has a multi-billion-dollar-per-year vested interest in perpetuating this technology as there are now 3 billion users worldwide. In Canada it owes the Government money because in 1996 when the microwave spectrum was auctioned off the telecom firms paid only a

percentage, with the remainder to be paid over time from their subscribers fees. This places the Government of Canada in a position of conflict of interest.

Alternatives:

Instead of more microwave towers, Dr. Neil Cherry recommends “we should be wiring up our cities with fibre-optic cables to provide Internet, fax, telephone, radio and television at very high quality.” Fibre-optic cable is already laid in New Denver. Emergencies could be handled far better by radio or satellite phones, pagers or personal locator beacons since cell phones are expected to work only within 2-6 kilometres of the tower at the mouth of Carpenter Creek.

The Slocan Valley Economic Development Commission would like to turn Area H (Crescent Valley to Summit Lake) into a cell-phone-free zone because of its economic advantages: when a region of Austria did so, tourism flourished.

What can we do about it?

Learn more about the issue. There are many excellent sites on the net. Become aware of the many different wireless devices you have in your home that use microwave technology. How safe are they?

Demand that **monitoring information** be made public and ensure that the protocol is adequate to measure the exposure of people living near the tower and also that appropriate baseline data be collected before any installation is permitted. In places where citizens have done independent monitoring they often find higher exposure levels than permitted and frequencies that are unlicensed.

Demand that the medical system be required to track the onset of symptoms when new cell phone antennae are installed.

Express your concerns to:

- **Health Canada:** Greg Gajda, Healthy Environments and Consumer Safety Branch
Greg_Gajda@hc-sc.gc.ca
- **Industry Canada:** Morris Bodnar, Director for Okanagan/Kootenay region
bodnar.morris@ic.gc.ca
- **Telus:** Steve Jenkins, General Manager, Customer Solutions Delivery, Interior South BC region
Steve.Jenkins@telus.com
- **Village of New Denver:** Mayor Gary Wright & Council office@newdenver.ca
- **Regional District of Central Kootenay:** Area H Director Don Munro, c/o info@rdck.bc.ca
- **The Valley Voice:** Letters to the editor valleyvoice@netidea.com

Information sources:

Websites

- www.microwavenews.com • www.wave-guide.org • www.rfsafe.com
- www.sageassociates.net • www.emfsolutions.ca • www.safewireless.org
- www.stopcelltowers.com • www.powerwatch.org.uk • www.hese-project.org
- www.electrosensitivity.org.uk • www.radiationresearch.org/research.htm