

HEALTH MATTERS

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WOMEN'S HEALTH COLLECTIVE

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BRAND NAME OR 'NO NAME' _____

Proposed Changes to Drug Patent Act

The federal government is about to introduce new legislation which, if approved, will change the Canadian Drug Patent Act. On June 30, 1986 former Consumer and Corporate Affairs Minister, Michel Cote released the federal government's draft amendments to the Patent Act provisions on pharmaceuticals. The proposed changes would reintroduce patent protection for newly marketed brand-name drugs. Drug patent protection gives the company manufacturing a particular drug a monopoly over the market for that drug.

Since 1969, Canadians have had access to cheaper generic equivalents to brand-name drugs. Generics are copies with the same composition as brand-name drugs. Most of the producers of generics are Canadian companies, whereas most of the producers of brand-name drugs are multinationals, many of whom are based in the U.S. The new changes to the patent act have been introduced into free-trade talks between the U.S. and Canada, as they would provide an advantage to U.S. based multinationals.

The new bill would give new drugs 10 years of protection against competition from generics. It would also promise 17 years of protection for drugs for which research and development took place in Canada.

There is no doubt that these changes will mean higher drug costs for Canadians. Not only will cheaper generics not be available in some cases, but the price of brand-name drugs will be higher when there is no competition to bring prices down. Higher drug costs will also increase the cost of provincial Medicare plans as hospitals will be forced to buy higher priced drugs. These higher costs may mean reduction in funds for other much needed health care services, including preventative health care. It is estimated that the proposed changes will increase the costs of pharmaceuticals in Canada by over \$400 million per year.

The proposed changes to the patent act are the federal government's

response to pressure from the "Pharmaceutical Manufacturers' Association of Canada", an association which represents primarily the interests of U.S. multinationals. Two years ago they enlisted the support of the Reagan Administration which decided the drug patent issue was one of the 'irritants' it wanted resolved before agreeing to free trade with Canada.

The multinationals argue that they have been treated unfairly since 1969 when generic copies of all patented drugs were first allowed. They also argue that Canadian jobs will be lost if they must remove manufacturing plants from Canada because of unprofitable conditions, and that research will be done elsewhere if it is not rewarded in Canada with patent protection.

However, since 1969 only one major pharmaceutical plant has been closed in Canada, and the closure was for reasons unrelated to the patent act. Canada has never been a major location for drug research, in spite of tax incentives to corporations to encourage research. Profits from drug sales in Canada are currently higher than in many western European countries and Japan. Only the U.S., which has the highest drug prices in the world, shows considerably higher profits.

Although drugs are not the answer to many health problems, there are situations for which they are needed. It is crucial that Canadians continue to have access to generic drugs to keep prices down.

The proposed changes to the Patent Act will affect all of us, either directly through higher costs or indirectly when our tax dollars are spent on higher priced drugs. Public outrage against the Patent Act amendments delayed their introduction before the summer recess of Parliament. The government needs to hear that there is continued and growing opposition to these changes. Letters should be sent to:
(no postage necessary)

The Right Honourable Brian Mulroney
Prime Minister
Room 309 S, C.B., House of Commons
Ottawa, Ontario K1A 0A2

The Honourable Harvie Andre
Minister of Consumer and Corporate Affairs
Place du Portage, Tower 1, 23rd floor
Hull, Quebec K1A 0C9

The Honourable Jake Epp
Minister of National Health and Welfare
Room 256 Confed. Building
House of Commons
Ottawa, Ontario K1A 0A6



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D.P.T.—A SHOT IN THE DARK

DPT: A Shot in the Dark

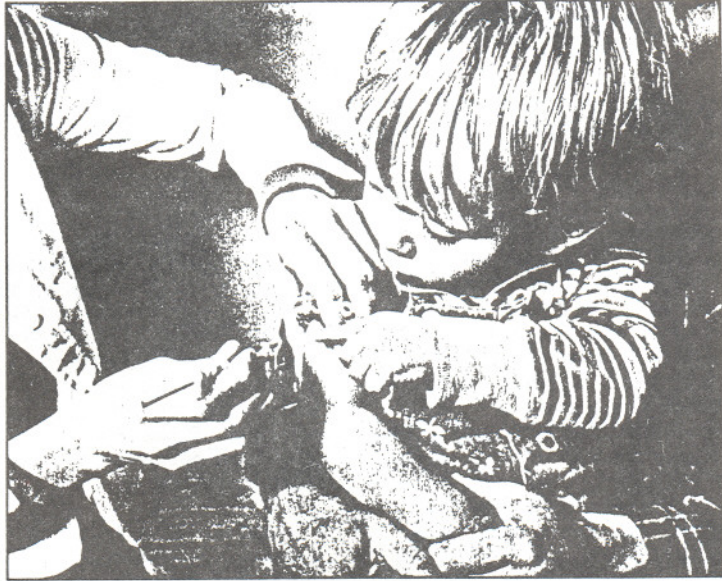
Harris L Coulter and Barbara Lee Fisher
Harcourt Brace Jovanovich Publishers
New York, 1985.

By eighteen months of age, most Canadian children will have had four DPT immunization shots that protect them from three life-threatening diseases - D for Diphtheria, P for Pertussis or Whooping Cough and T for Tetanus. However few parents are aware of the possible effects on their children of exposure to the whooping cough component of the DPT shot. Growing concerns about the Pertussis vaccine have caused health activists to wonder if its benefits outweigh its risks. Undoubtedly Pertussis has become the most controversial vaccine in the history of immunization.

Coulter and Fisher have written a provoking and powerful book which outlines the use and abuse of the Pertussis vaccine. The most striking feature of the book is its interplay between well documented factual information and emotional personal accounts from parents who took their children to have their DPT shots unaware of the possible consequences. Some parents go on to tell how they tried to comfort their children through the agonizing days and nights of screaming and pain following the vaccination. Some recount how their children died in their arms, while others explain the shots' debilitating effects that have left their children disabled or developmentally delayed.

All vaccines work on the same principle by artificially stimulating the immune system to produce antibodies, small molecules of protein, that attack the invading organism in the same way that the natural disease stimulates immunity. However, the Pertussis vaccine is unlike most others used in North America because it is a whole cell vaccine, where most are acellular - containing no cells. The whole cell is thought to induce more severe reactions than its acellular counterparts.

The Pertussis vaccine was originally isolated in 1912 for use in Tunisia. There it was grown in large pots, killed with heat, preserved in a mixture of formaldehyde and injected into children. It has changed little since then except for the addition in the 1950's of an alum-based adjuvant or enhancer which heightens the capacity of the body to produce antibodies.



Mothering

After a DPT shot the majority of children experience a low fever and some redness around the site of the injection - nothing else. A small minority react violently and are more likely to be left with illness, neurological defects, seizure disorders and paralysis. However other children's reaction may never be connected to the DPT shot at all. These children may be left with chronic infections, behaviour problems and delayed development.

For readers looking for an absolute answer to the question of whether immunization is a good thing, you won't find it here. However, you will discover that the immunization debate is littered with sets of assumptions and suppositions that make it virtually impossible to decide whether getting your child vaccinated is good or bad. Opponents of the pertussis vaccine argue for example, that if we assume that mortality rates from whooping cough continue to decline at the same rate over the next 10 years, then it would be extremely difficult to show statistically that the vaccine had any effect in reducing mortality from whooping cough. Proponents of the pertussis vaccine argue that if routine vaccination programmes are discontinued, we can assume that the incidence of whooping cough and deaths from it will increase.

Aside from these arguments the book does ask some interesting questions. Why are so many children

being exposed to an unnecessarily dangerous vaccine when there is a less toxic acellular vaccine against whooping cough already available? The acellular vaccine, developed in Japan, has an incidence of fever only 10% of that with the whole cell vaccine. Why do doctors and health protection agencies not warn parents of the potential risks to which their children are being exposed? Why in some jurisdictions is immunization compulsory before children can register in school, even if these children have displayed an intolerance to a previous vaccination? Why do doctors refuse to listen to parents who report extreme reactions after their children's vaccinations?

The book not only asks such questions but it also suggests some possible answers. It concludes with a chapter titled 'What Parents Can Do' which outlines everything from 'what questions to ask the doctor' to 'how to take legal action if your child has suffered from the DPT shot'.

DPT: A Shot in the Dark was born out of a shared vision by parents, physicians, scientists, journalists and others who recognized that public education about the pertussis vaccine would help prevent unnecessary death and damage. It successfully uncovers the controversy in a clear easy-to-read way, and is essential reading for people interested in public health as well as for those of us wanting to ensure the safety and health of our children.

SILENT HEARINGS — Depo Too Hot to Mention

In November of last year it seemed that Health and Welfare had all but finally approved Depo Provera for unrestricted contraceptive use in Canada. On November 22 the newly formed Canadian Coalition on Depo Provera held seven press conferences across the country, notifying the public of the dangers the drug posed and urging the government to reconsider its position. Initially, Health and Welfare officials said there would be no room for public input into the decision making process, that it was a matter between the government and the manufacturer, Upjohn Canada. Later, having met with representatives from the coalition on Depo Provera, Minister of Health and Welfare, Jake Epp, assured that there would be some room for individual concerns to be heard and that a final decision regarding approval would not be made until the spring.

Apparently swayed by public opinion calling for open hearings on Depo Provera, Health and Welfare announced in July cross-country meetings on 'Fertility Control'. This is the first time that the government has solicited input from non-government groups and individuals regarding the approval of any drug or medical device. On September 4th a panel of 'experts' began their trek to Halifax, Montreal, Toronto, Winnipeg, Calgary and Vancouver.....Sounds good so far?

In fact the meetings were not all they appeared to be. Some would say they were nothing more than a public relations ploy aimed at appeasing those who called for full public hearings on Depo Provera.

- The panel consisted of five gynecologists appointed by the government; one had been involved in clinical tests of Depo Provera and at least one other has already stated that Depo is suitable for contraceptive use in Canada.
- Attendance at the meetings was by invitation only. The public and press were not allowed to participate or observe.
- Invitations were sent out in late July and August, allowing little time for preparation.
- No financial assistance was given for travelling costs, so that only groups in the immediate vicinity of the meeting could attend, and no financial assistance was given to people presenting briefs.

The Vancouver meeting included 22 presentations from health practitioners, academics, women's groups, disabled groups and pharmacists. The format was stiff and formal: speakers addressed the group from a podium, had only fifteen minutes to present and could be asked only three questions by the audience. There was little discussion, and it was easy for information to be unverified and to go unchallenged.



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Because the terms of reference for the meetings were poorly defined, the focus of submissions varied enormously. About half referred to Depo Provera directly and several, like the Health Collective, talked exclusively about Depo.

So what is the intended outcome of the meetings? The only concrete things we know of is that Health and Welfare is planning to produce a new pamphlet on birth control and that the panel of gynecologists will produce a report on their cross country experience. It hardly seems worth all the effort! Clearly, full public hearings on Depo Provera that are overseen by a panel of neutral medical and consumer representatives, are still needed.

DISCRIMINATION ON THE BASIS OF AIDS

In California, over 600,000 signatures have put a proposal on the November election ballot that would redefine AIDS, ARC (Aids Related Conditions) and the presence of HTLV-III virus as contagious conditions. If approved health officials would have the power to remove people with AIDS, ARC or carriers of the HTLV-III virus from certain jobs, restrict their freedom of movement and/or confine them to places of isolation.

The gay and lesbian communities in San Francisco and statewide have a large campaign to stop the proposal, called the 'LaRouche Initiative' or 'Proposition 64.

In California the Initiative is being promoted by PANIC (Prevent AIDS Now Initiative Committee), an organization that is allied with the Lyndon LaRouche National Democratic Policy Committee. La Rouche, a twice failed Presidential candidate is seen as a political extremist and has a long history of anti-semitic, racist and anti-gay positions.

Proposition 64 is expected to cost billions of dollars annually in testing costs, quarantine costs etc. which would likely be met by severe cutbacks in other programmes. State funding of AIDS research and education could be wiped out. Fear of discovery and

its consequences may prevent people from volunteering for much-needed AIDS research, limiting the ability of the medical and scientific community to track the disease and stop its spread.

All present scientific and medical evidence indicates that the virus which causes AIDS is primarily spread through intimate sexual contact or through the exchange of blood products. There is no evidence to indicate that AIDS has been transmitted by any means of casual contact, whether in homes, schools, restaurants, or workplaces. The extreme measures of Proposition 64 would not prevent one case of AIDS. No credible medical or public health leader or organization supports the proposition. It is opposed by the California Medical Association, the California Hospital Association, the California Nurses Association, the



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CRITICAL READING ————— How to Read Medical Studies

Reading the medical literature can feel like wandering through a maze blindfolded with all one's senses straining for clues.

It can be very intimidating to look at articles in medical journals because the medical language used most of us have to look up in a dictionary, or because statistical tests and terms are used which most of us will not understand. Often studies look at people with a disease such as cancer, and nowhere within the framework of the presentation of the study will there be a note of compassion for their situation. And often, probably because medical studies are so impersonal and such hard reading, they can be boring.

It is however, well worth venturing into the maze of medical journals. Research on women's health is not only done with the interests of women in mind. The motive for the study may primarily be the marketing of a profitable drug, or countering some negative publicity for harmful effects of a drug or procedure. If we have to rely on someone else's interpretation of original research, it can often be hard to know what information to trust or not to trust. By learning to read the medical literature and by keeping our eyes open for clues to flaws in a study, we can be better judges of the results.

Sometimes the clues will be 'flaws' in the study design, which like all mistakes may be accidental, or they may be deliberate. For instance, a researcher might have looked at whether the birth control pill increases a woman's risk for breast cancer. But did s/he allow enough time since the women were on the pill for the slow process of cancer development? Or another study might look at the rates of pelvic infection (PID) among pill and non-pill users,



Left words

and find that the pill protected women against PID. But was the comparison group of non-pill users, primarily women with IUD's, who as a result of their IUD use run a much higher than average risk of developing PID?

Sometimes clues to the intentions of the study will be in a small statement, usually in tiny print, stating that the research was made possible because of a grant from a large drug company or from the American Tobacco Institute. Often the conclusions will look suspiciously like what the sponsor might want to see. Often however, a researcher may have a position at a university and also receive grants from private corporations, so the source of funding for a piece of research is not always clear.

At other times it may be much more difficult to pick out a study which presents false or unwarranted results. For instance, a study could look at

how many women with chlamydia (a sexually transmitted disease) had abnormal pap smears compared to women without any previous exposure to chlamydia. If more women with chlamydia have abnormal paps, the researchers could assume that having chlamydia increases a woman's risk for cervical cancer. However, the pap smear which tests for cell changes leading to cervical cancer will also look abnormal because of cell changes caused by chlamydia. So sometimes the diagnostic test for a condition can cause a study's results to be biased.

One very useful guide for looking at medical studies is *Studying a Study and Testing a Test; How to read the Medical Literature*, by R.K. Riegelman, published by Little Brown & Co., Boston, 1981. It explains what the different types of studies are and for which situations each one is appropriate. Riegelman then presents a very detailed and organized way of analyzing a study, breaking it down into a number of areas to examine. The book is full of examples of real published studies which are often incredibly poorly designed. There are sections labeled "flaw-catching exercises" which present a summary of a study and its conclusions and then proceed to pick it apart. A similar approach is used to look at diagnostic tests used in medicine and reported rates of disease.

Understanding and demystifying the medical literature is one of the primary goals of the Health Collective, for by doing so we have greater access to the information we need to make lasting health care choices. If you are interested in being involved in research on women's health issues please phone us at 682-1633. We will be hosting a workshop for interested women on 'How to Read the Medical Literature,' in late October or early November.

AIDS PROPOSAL

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California Psychiatric Association, the California Psychological Association and the California Association of Local Health Officers.

If passed, Proposition 64 could have far-reaching effects not only for people with AIDS, ARC and HTVL-III carriers, but also for gay men and lesbians. Many see the proposal as

an extension of some people's terror and rage at the thought of same sex intimacy: Homophobia. The lack of medical justification for redefining AIDS and ARC as contagious conditions strongly suggests that Proposition 64 is yet another attempt to repress gay men. However, lesbians, who as a group are at low risk to get AIDS or ARC, will also be affected by the homophobic repression that will occur if Proposition 64 is passed.

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HEALTH SHORTS

Spouse Benefits

This year, in its negotiations with the Vancouver School Board, the Vancouver Municipal and Regional Employees Union (VMREU) obtained a clause in its contract which recognizes same sex couples as eligible for medical benefits. The employee's partner qualifies as a spouse if she/he is "publicly maintained and represented as the employee's spouse and has continuously been so maintained and represented for at least the previous twenty-four months".



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Abortion Clinic

Concerned Citizens for Choice on Abortion (CCCA) has launched a drive to establish an abortion clinic in Vancouver, B.C. Under the present law, legal abortions can only be performed in accredited hospitals if, in the opinion of the Therapeutic Abortion Committee (TAC) continuation of the pregnancy would endanger the woman's life or health. However hospitals are not required to have TAC's and many don't and women are often faced with little or no access to abortion in their community. CCCA sees clinics as the answer to this "crisis of access" for they will eliminate dangerous delays that exist within the bureaucratic hospital system. Opening a clinic will also increase pressure to change the law. Establishing a clinic is a big project that will take money, courageous doctors and nurses, a legal defense fund and a political climate that express the need and demand for the clinic. If you want to help or want more information write to: Concerned Citizens for Choice on Abortion P.O. Box 24617, Station C Vancouver, B.C. V5T 4E1 or phone: 876-9920



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Birth Control Vaccine

Clinical trials may begin next year on an anti-fertility vaccine, a new method of birth control which makes use of the body's own immune system. This vaccine is being tested for safety on thirty Australian women who have been surgically sterilized. Further testing on larger groups of women is being planned by the World Health Organization (WHO).

The early human embryo secretes a chemical called human chorionic gonadotropin (HCG) which signals the mother's system to produce the hormones necessary to continue the pregnancy. The vaccine, when injected into a woman's body, causes her immune system to recognize HCG as foreign and to produce antibodies against it, as if it were a bacterium or a virus. The antibodies attack and neutralize the HCG, causing the loss of the embryo at an early stage. This is following the current trend in birth control, toward methods which give women less control over their fertility on a day to day basis. These methods also require less input from health care practitioners. It is much faster to give a woman a shot than, for example, to fit her with a diaphragm.

Source: Vancouver Sun July 9 1986
Globe and Mail July 10 1986



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Dalkon Shield

The bankruptcy court in Richmond, Virginia has recently approved a new 55 page questionnaire to be completed by claimants against A.H. Robins, manufacturer of the Dalkon Shield IUD. The questionnaire will be sent to a random sample of 1% of the approximately 350,000 claimants worldwide. Once completed it will be evaluated and adapted before being sent to all claimants. The questionnaire aims to 'weed-out' invalid claims and it seems it also aims to intimidate people from answering it by asking questions that amount to an invasion of privacy. In fact the very first question on the questionnaire is "When did you lose your virginity?". Subsequent questions ask for the names of all sexual partners!! Several lawyers are fighting hard to ensure that these irrelevant questions are dropped from the final version of the questionnaire, but it seems that Robins is not about to give up easily its dirty tactics of intimidation.



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H.C. Update

The Health Collective's Spring fundraising drive has netted a total of \$10,588: \$4,588 from our direct mail campaign and \$6,000 from a private trust fund. This response is very encouraging and confirms that there is solid support in the community for the work the Health Collective does. We would like to thank those of you who met the call for funds by writing cheques and letters of support, you have helped to keep our work going. Our efforts to raise money through private donations will be continuing this winter. Also, at present we have several grant proposals under consideration in various federal government departments, but have no final word on any of them. Anyone interested in helping with our fundraising work is welcome to become involved. You can contact members of the fundraising committee at 682-1633 for more information.

IS YOUR VDT MAKING YOU SICK?

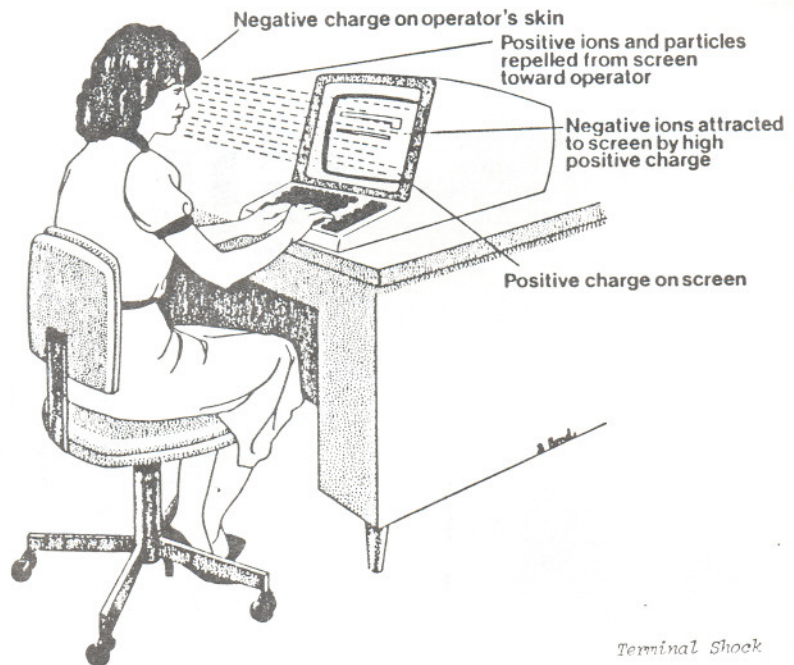
A video display terminal (VDT) is the television-like screen which, connected to a typewriter keyboard and linked to a computer, has become standard equipment in offices, schools, and homes throughout the industrialized world.

Fifteen years ago, only a few people used VDTs on a daily basis. In 1985, there were over 13 million in use in the United States and Canada. It is estimated that by 1990 there will be more than 38 million VDT workstations in factories, schools and offices, and another 34 million in homes. The projections are that more than half the workforce in the industrialized countries, and large numbers of urban workers in developing countries will be using VDTs regularly.

In North America most of the VDT operators are women who work in white collar jobs. Few are in unions. Many have experienced serious health problems since the introduction of VDTs to their workplaces. There is a growing number of successful worker's compensation claims for muscular injuries, eye damage, and stress-related health problems.

Many of these problems are the result of poor workplace design. VDTs are often introduced into offices without provision being made for the changed needs of the operators. Traditional office lighting is usually too bright for VDT work, making the screens difficult to view, and resulting in eyestrain and headaches. Reflected glare on the screen is also a problem, as is the flicker produced by the machine.

VDT workstations should be adjustable for the comfort of individual operators. Chairs that do not give



Terminal Shock

proper back support, screens that are at the wrong height or angle, keyboards that are too high - all these factors add up to muscle strain and chronic fatigue. As well, the repeated finger motions and extension movements of the wrist can cause debilitating repetitive strain injuries.

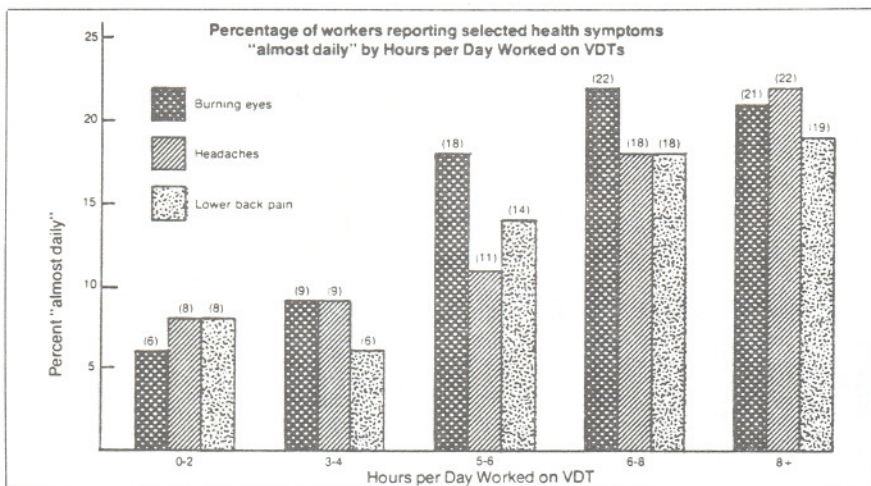
As more and more evidence is being collected about VDT related illnesses, there are efforts being made to introduce basic health and safety regulations. The computer industry has reacted swiftly, launching, in 1984, a multi-million dollar campaign aimed at defeating new legislation designed to protect VDT users. The industry continues to deny the health effects of VDTs.

VDTs generate and emit electromagnetic radiation which might pose a serious health hazard to the operator. First, let us look at what radiation is. Electromagnetic radiation is the flow of electrical and magnetic forces which radiate outward from an electric charge. These forces move through space in a wave-like manner, much like water moving in the ocean.

Electromagnetic waves can be timed and measured in terms of their frequency, and in terms of their wavelength. These two characteristics are related - the shorter the wavelength, the greater the frequency. Frequency and wavelength are what determine the different forms of electromagnetic radiation, which are arranged on a continuous spectrum similar to the arrangement of colours in a rainbow.

Near the middle of the spectrum is visible light, consisting of electromagnetic waves which the eye recognizes as colours, ranging from red with the lowest visible frequency to violet with the highest. Those forms of radiation with higher frequencies than visible light are ultraviolet (UV), X-rays, and gamma rays. In the other direction, those with lower frequencies are infrared (IR), microwaves (MW), radio frequencies (RF), very low frequencies (VLF), and extremely low frequencies (ELF).

Terminal Shock



The effects the various forms of radiation have on the human body are determined by their frequencies. Those with longer wavelengths, such as some microwaves, radio frequencies, and extremely low frequency can travel through the body, causing the molecules to vibrate and produce heat. High frequency microwaves and infrared penetrate a short distance into the body, also producing a heating effect.

Visible light and ultraviolet are absorbed by the surface of the body, producing sunburn. The frequency of visible light radiation is such that it causes the electrons in an atom to change their orbits. Ultraviolet radiation can cause the outer electrons to jump out of the atom.

The frequency of X-rays is high enough to knock the inner electrons completely out of the atom. This is called "ionizing", and produces chemical changes in the substance affected. If this substance is a living cell, it will be damaged, and will either die or repair itself imperfectly. Some of the results of ionizing radiation are cataracts, cancer, miscarriages, and birth defects.

Non-ionizing radiation, although lower in energy than ionizing, is still capable of causing similar injuries to people who are exposed to it over a long term. How it does this is not well understood.

Video display terminals generate both ionizing (X-ray), and non-ionizing radiation. They also produce static electricity, which builds up on the screen and in the surrounding space.

X-ray radiation, while known to have very serious health effects, is not considered to be a cause for alarm in terms of VDT users. The VDTs are designed to contain the radiation, and recent studies have shown that X-ray emissions are not detectable. However, it is potentially a serious problem if the manufacturers do not test the machines they are putting on the market.

The non-ionizing radiation produced by a VDT can be divided into four categories: optical radiation, which includes ultraviolet, visible light, and infrared; microwaves and radio frequency; very low frequency; extremely low frequency.

Whether the health effects of ultraviolet radiation are acute or delayed depends on the strength of the radiation, and on the duration of the exposure. Acute effects are

sunburn, eye irritation, and burns on the cornea of the eye. Examples of delayed effects are cataracts and skin cancer. Visible light, depending on its brightness, can produce eye discomfort and chronic eye strain. Overexposure to infrared can result in skin and eye burns.



Health and Safety Ass. Newsletter

In the microwave/radio frequency range, research into the biological effects is new and incomplete. Concern has been based primarily on the thermal effects, with less emphasis placed on the non-thermal. Studies of the non-thermal effects of MW/RF radiation have shown adverse effects on the eyes, the brain and the central nervous system, as well as on the immune, cardiovascular, and reproductive systems.

North American standards for exposure to MW/RW radiation are based on whether the radiation has sufficient power to heat body tissue, not taking into account the non-thermal effects. On the other hand, in Eastern Europe, where the non-thermal effects have been more extensively studied, the occupational exposure standards are a hundred times lower than they are here.

The health effects of the very low frequency, extremely low frequency, and static electric fields produced by VDTs are less understood than those of the other frequencies. The fact that these are pulsating fields has been mostly overlooked. The

official position of regulatory agencies is that radiation in these frequencies interacts only slightly with the human body, therefore it is not a problem. There have, however, been several studies of pulsed electromagnetic radiation, in frequencies both higher and lower than those emitted by VDTs. These studies showed, among other effects, detrimental effects on embryonic development, and damage to white blood cells.

Although there is little direct evidence of biological effects from the pulsed fields of VDTs, there is reason to suspect a connection between this type of radiation and the clusters of adverse pregnancy outcomes reported among women who work in close proximity to VDTs.

Extremely low frequency radiation, too, has its list of reported biological effects. These include interference in growth, change in blood composition, and disruption of normal daily rhythms. Recent research shows an association between leukemia and exposure to ELF fields.

What is being done to protect workers? Several unions have, in their collective agreements, regulated some of the conditions under which their members will work at VDTs. The majority of office workers are, however, not unionized. In Canada, two government-sponsored task forces established to study the potential health hazards of this technology have recommended government action to protect the health of VDT users. These recommendations were ignored by federal and provincial governments.

Reference: Terminal Shock: The Health Hazards of Video Display Terminals. Bob DeMatteo NC Press Limited Toronto, 1985



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