

Neither the Navy nor the researchers thought about VDTs while planning the research. Says Berman, "There's no scientific reason to believe that this study related to

sitting in cramped positions may affect a pregnancy's outcome—or the findings might be the result of distorted recollection. Women who have miscarried might be more likely

hear the words "15-minute break," but a break doesn't necessarily mean a coffee break. NIOSH is referring to an alternative, non-VDT-task break. "It doesn't mean no work, it just

Despite COT's assertion, VDT and office equipment purchasing guidelines have been introduced in a number of state legislatures. California, for example, currently has

CONFESSIONS OF A VDT HATER

Simson Garfinkel

The first time I used a computer was at the Lawrence Hall of Science in Berkeley, California. The year was 1976, and I was playing Star Trek on a teletype in the museum's basement. I didn't get eyestrain from reading the black printing on yellow TTY paper, or radiation from the flyback transformer in the back of the machine. (There isn't one.)

I did, however, get a headache from the incessant noise.

The next computer I used was an HP desktop computer at the Franklin Institute in Philadelphia. The computer had a bright one-line plasma display and a thermal printer. No radiation there.

Then the PC craze hit, and suddenly there were computer monitors and VDTs everywhere. In 1978, I got my own and started spending four, five, sometimes six hours a day in front of the screen. Occasionally, I would spend all night writing a program. I'd walk away from the terminal the next morning, high from the exhilaration of hacking, with a killer migraine as a reminder.

I used to turn off the lights in my computer room. I told my family the darkness was to keep the glare down; they just thought that I was being weird. Having your own computer was weird enough in those days. Then I got to MIT and discovered that the practice of turning off the lights was quite widespread.

Given access to the light switch,

lots of people do it.

Two years later, Digital Equipment Corporation (and a few other companies) started putting an anti-glare coating on its VDTs. The coating is a remarkable engineering accomplishment: It's the thickness of a quarter of a wavelength of light (light in the middle of the visible band). When glare from the room's lights hits the surface of the screen, part reflects from the coating, and part reflects from the glass itself. The two parts of the light recombine and destructively interfere with each other, eliminating the glare.

At least, that's the way the anti-glare coating works in theory. The problem is that if you touch it, the oil from your fingers sticks to the coating and makes it thicker than a quarter-wavelength. The result is that fingerprints iridescently glow on the screen. Try looking at a VT-220 sometime.

Another technique that Digital uses on its newest terminals is called "fine etch," in which tiny lines are etched onto the screen to reflect light toward the sides rather than back at the user, but fine-etch can't be used on high-resolution displays.

Perhaps more important, neither anti-glare system does anything to cut down on the amount of radiation that the user is exposed to.

That's where things stood before I got my first portable computer, a Toshiba 3100 with an amber plasma display. No more soft X-

rays—even if medical authorities say they aren't hazardous, there's no reason to take chances—and no low-frequency radiation from the fly-back transformer. Just like my old friend the teletype, there isn't a fly-back.

Like most laptops, the screen tilts back and forth. And although the keyboard isn't detachable, it's easy to move the whole computer when I want to change position.

Still, the 300 volts behind the screen bothers me. I know it's there because I can hear it: When I hold my telephone in one hand and touch the screen with the other, I hear a buzzing in the handset. It must be some kind of inductive coupling between the screen, the telephone and my body.

That frightens me a little. Toshiba says that there's no reason to worry.

My newest computer is a 5.8-pound wonder with a liquid crystal display. No radiation here at all, nor a high-voltage power supply—only 22 volts is required to run the screen. I can even take the machine outside on a sunny day and do my work while sitting under a tree.

Now that's ergonomics!

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HEALTH WATCH

Current statistics have it that 15,000,000 employees work on VDTs. Surveys show that workplace computer users experience significantly higher incidences of health problems than non-computer users. If true, this sounds like very bad news. What does it all mean to you?

On two dates in late October and November, the BCS is sponsoring the first annual BCS Wellness Conference in Boston. (BCS activist R. Hans Hilgermann is director of the conference; for more information, call the BCS office.) Conference topics include: The Case Against VDTs—Are They the Real Problem?; Is Wellness in the Workplace a Women's Issue?; The Return on Investment for Companies Promoting Wellness in the Workplace; Corporate Wellness in Japan; and Wellness Programs at the Harvard Business School.

One hoped-for outcome of the conference is the establishment of a Greater Boston Wellness Council, of which the BCS would be a founding nonprofit member.

BCS Update will report on activities at the conference in a later issue. We also will begin a new, regular column starting next month, edited by Hans Hilgermann and entitled *To Your Health*, which will keep you posted on computer-related health issues. We're interested not only in your computer's well-being, but in yours as well!