

VDT OVERVIEW

Vol. 2, No. 3

THE VDT COALITION

February/March 1985

New California VDT bills introduced

Two new bills regulating the use and purchase of video display terminals are about to be introduced in the California legislature by Assemblyman Tom Hayden author of last year's VDT legislation. As currently written, the first would mandate proper lighting, well designed terminals and workstations, glare control, rest breaks, regular eye exams and an employee training and education program. This bill, covering private and public sector workers, was drafted by members of the VDT Coalition, LA VDT Task Force and the California Labor Federation which is sponsoring the legislation.

A second bill directs the State Office of Information Technology to develop guide-

lines for the purchase of VDTs and associated furniture. Under this bill state agencies could buy only equipment conforming to certain health and safety specifications. The purchasing guidelines would address the following issue: glare, screen legibility, noise, ergonomic requirements, electromagnetic fields and static build-up. This bill is sponsored by the California State Employees Association and would cover state workers only.

"Mounting health problems relating to use of VDTs continue to plague a major segment of California's workforce, most of whom are women," according to Kathleen Kinnick, Director of Women's Activities for the California Labor

Federation, AFL-CIO. She cited the State Legislature's failure to enact needed protective legislation last year as the reason for the Federation's sponsorship of a new, comprehensive measure to meet the needs of these workers. The new bill is similar to AB 3175 which, during the final days of last year's legislative session, was referred to interim study following the corporate community's massive lobbying effort for defeat of the measure.

Members of the VDT Coalition, the LA VDT Task Force and other labor and community organizations are once again lending strong support to these efforts to establish health and safety standards for VDT work.

Vision Therapy: a new treatment for eyestrain

by Doreen Gentry

Over 85 percent of VDT workers report vision-related health problems including dry, sore, tired eyes; photophobia (light sensitivity); headaches; blurred vision and the inability to focus easily at a distance after doing near work. VDT workers who have never needed corrective lenses may suddenly require them, and workers who already wear glasses may find themselves with stronger and stronger prescriptions. Others have experienced disabling vision problems prompting workers' compensation claims.

Traditional optometrists and ophthalmologists may not be responsive to the complaints of VDT workers about their vision problems. A VDT worker seeking an eye doctor's help may be told she or he is simply suffering from eye strain which is a "comfort" issue rather than a legitimate health problem. And, many standard eye examinations do not measure eye strain as they are designed only to determine how well a person sees

stationary letters at 20 feet. In fact, special tests may be needed to detect eye strain and to measure how well the eyes function in the typical VDT work situation in which operators focus on the screen for hours at a time.

WHY THE VDT?

Why does work at the VDT cause such widespread complaints?

Any intensive near work for more than 3-4 hours at a time causes fatigue and stress on the visual system. The human eye functions best looking at a distance, when the eye muscles are relaxed. The eye accommodates itself to near vision by contracting the involuntary muscles of the eye. Long periods of near work, such as that done by VDT workers, can cause fatigue and inflexibility of the eye muscles and result in a "spasm" or locking of those muscles.

To complicate matters for the VDT worker, he or she has to deal with glare from lighting sources, reflections on the screen and blurring or "flicker" of the display. VDT work also requires rapid

eye movements and focusing shifts from copy to screen which the eyes do not perform easily.

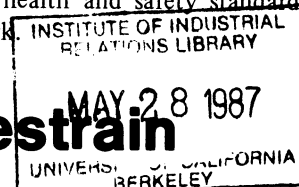
VISION THERAPY

Many optometrists recommend looking up from close work every five minutes to rest the eyes and taking regular breaks away from the VDT terminal. In addition to the rest, some doctors believe the eyes also need exercise to build up the muscles and improve the eyes' ability to focus and work together.

Behavioral optometrists, eye doctors who deal specifically with problems resulting from near work, are developing varying methods to exercise the eyes and improve the focusing system. These methods are called "vision therapy."

A course of vision therapy usually includes the use of special equipment in the optometrist's office as well as exercises performed at home and on the job. Each patient's vision therapy program is determined by her/his specific needs.

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Vision Therapy

(Continued from page 1)

While behavioral optometrists may use a variety of impressive-looking equipment in the office, basic vision training can be performed at home without expensive equipment or with such simple devices as a few beads and some string (see box).

In a vision therapy program, the patient may be provided with lenses and prisms, for reading which strengthen the eye muscles by alternately relaxing and contracting them. Other exercises develop the eyes' ability to work together to shift from near to far focus and to hold the focus without fatigue.

In some cases, special "terminal spectacles" may be prescribed. Because normal glasses are designed for reading at distances of 12 to 14 inches, rather than for viewing screens that are 18 to 25 inches away, regular corrective lenses may not be adequate for VDT use. "Terminal spectacles" relax the visual system and correct for reading at distances associated with VDT use.

PREVENTIVE MEASURES

While treatment of VDT-related eye problems is essential it is important that such problems be prevented before they occur. Steps should be taken to insure that VDT jobs and work stations are designed in ways to minimize strain on the eyes. This means proper lighting, well-



maintained terminals, regular rest breaks and properly designed furniture. And, to protect the visual system, operators should have periodic eye exams performed by doctors familiar with the special visual demands of VDT work.

EYE EXERCISES

Take a pencil which has clearly readable lettering down its side. Hold it at eye level, about 7-8 inches from the eyes, and focus on the lettering. Then look away to an object across the room until it comes clearly into focus. Look back at the pencil, moving only the eyes, until the lettering comes into focus. "Rock" the vision, from near to far, five times. Repeat: holding the pencil slightly above eye level; below eye level; to the left side at eye level--closing the left eye; and to the right side--closing the right eye.

* * *

Take a piece of string 3 or 4 feet long. Have someone hold one end or attach it to something. Hold the other end to the bridge of your nose, just below the eyes. Focus your eyes as close to one end of the string as you can, then gradually move your focus down the string to the other end. You will notice that the string appears to split in two. Follow the string with your eyes until the "two" strings appear to cross in the middle. Continue to the end, where the two strings will appear to converge. Then move your eyes back along the string towards your nose.

* * *

The above exercises strengthen the eye muscles. The following exercise is designed to relax and rest the eyes.

Place the palms of both hands lightly over the eyes, fingers crossed on the forehead. You will see partial or complete blackness. Relax and try to make this darkness as black as possible. Then visualize a pleasant scene, looking out toward the horizon, focusing alternately on near and far objects, noting movement, etc. Doing this exercise, called "palming," for five minutes several times a day is very restful for the eyes.

NIOSH will study VDTs; reproduction

The National Institute for Occupational Safety and Health (NIOSH) has announced plans to begin a one and a half year study of the association between VDT use and reproductive problems. The study, slated to begin in the summer of 1985, will attempt to determine whether or not there is an excess number of adverse pregnancy outcomes among full time VDT users. The study population of 4,000 women will include married women, ages 18 to 44, employed as telephone operators from 1983 to 1985 (2,000 will be VDT users and 2,000 will not). Using interviews, employment and medical records, researchers will tabulate any pregnancy problems occurring over the last two years.

In an interview with *Video Views*, NIOSH epidemiologist Dr. Teresa Schnorr cautioned that this study will determine only whether or not VDT users have a higher than expected number of problem pregnancies and will not identify the possible cause of such problems. If the study results are positive, more research will be needed to begin to determine why the problems are occurring.

According to Dr. Schnorr, NIOSH was prompted to undertake this study by the extremely high level of public concern generated by reports of clusters of miscarriages and birth defects among VDT operators. Much of the concern has focused on the possibility that VDTs may emit harmful levels of radiation. Though NIOSH has asserted that VDTs do not pose a reproductive hazard and that radiation emissions are well within safe limits, Dr. Schnorr stated that their position is based on current knowledge. She acknowledged the possibility that there could be a problem that has not yet been identified or measured.

Dr. Schnorr expects that the study results will be available by the end of 1987.

Carpal Tunnel Syndrome strikes VDT operators

by Bill Davis, San Jose Newspaper Guild

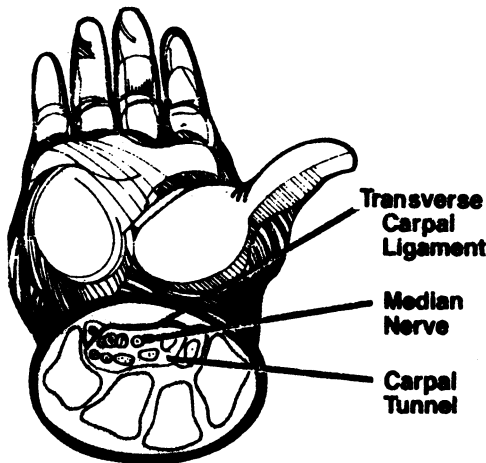
A little known wrist ailment, called "carpal tunnel syndrome," is cropping up among San Jose Newspaper Guild members who operate video display terminals.

Four women employees of the San Jose Mercury News have developed the disorder, resulting in an early disability retirement for one and surgery for two others. The latter two have qualified for State Disability Insurance.

What is carpal tunnel syndrome and how does it relate to VDT work? The "carpal tunnel" is a wrist structure formed by bones on three sides and a ligament on the fourth. A nerve that helps control finger grasping, and tendons that allow the fist to close, pass through the tunnel. Constant, forceful hand exertion with the wrists bent can cause the tendons and ligament to press against and damage the nerve. Those who develop the disorder usually feel a numbness in the palms and fingers, tingling, soreness and weakness. It often causes considerable pain.

Carpal tunnel syndrome has apparently been linked to keyboard work since the earliest days of the typewriter and of secretarial pools, but few cases were reported or diagnosed as such.

Until the advent of the VDT, few employees in the newspaper industry, other than a few secretaries and some printers, constantly performed keyboarding work. However, since the introduction of VDTs, more cases are being diagnosed, particularly among those who



operate VDTs for most or all of their working day.

In a 1981 article, Dr. Michael J. Smith, former director of motivation and stress research for NIOSH, stated: "Repeated trauma, produced by keying-in data, has been linked to a very high incidence of carpal tunnel syndrome and disabling wrist disorders."

The San Jose Newspaper Guild cases all involved women who operated VDTs for most of their working day.

One 65 year-old classified salesperson underwent surgery on both wrists last fall. Another, age 29, has had surgery on one wrist, and faces surgery on the other. A 53 year-old circulation clerk who had neck and shoulder problems, in addition to carpal tunnel syndrome, took a disability retirement last fall. At the time, she could type with only one finger. Another circulation clerk, also age 53, has avoided surgery, although it has been advised, choosing instead to tolerate the discomfort and pain.

Prior to the introduction of VDTs at the newspaper, less than a dozen years ago, not a single case of carpal tunnel syndrome was reported to the union.

Bargaining for Safety

The California State Employee Association (CSEA) has established a Labor/Management VDT Committee in a contract covering approximately 79,000 state civil service employees.

The contract language calls for the joint labor/management VDT committee to:

- 1) identify the various work setting and activities where VDTs are used;
- 2) review available literature relating to the effect of office environment and equipment specifications upon employees who operate VDTs;
- 3) make appropriate recommendations to the state by April 1, 1985.

At the initial meeting of the committee both labor and management representatives stated their willingness to work together to determine the current and prospective use of VDTs in state service. The group's recommendations will serve as a basis for future contract negotiations.

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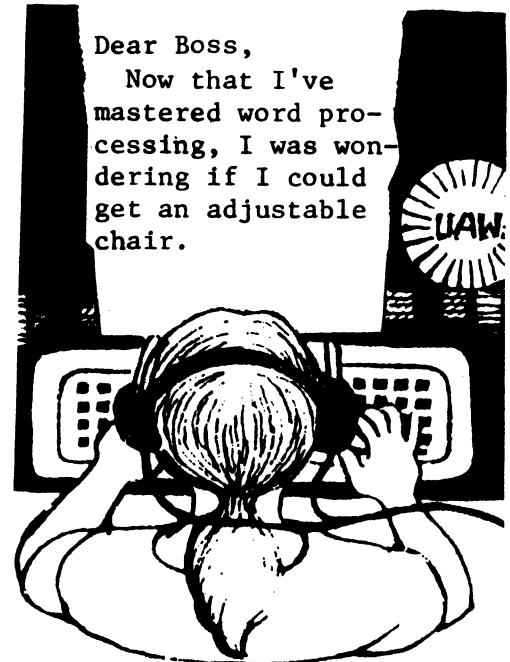
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If you are interested in finding out more about the VDT Coalition's activities please call 415/642-5507.

Newsletter Committee: Rachael Blau, Cathie Chavez, Bill Davis, Doreen Gentry, Greg Lum, Bob Matthews, Jean Miller, Jean Robinson, Laura Stock, John Torpey, Chris Weinstein. Thanks to Cathy Davis.

Dear Boss,

Now that I've mastered word processing, I was wondering if I could get an adjustable chair.



Automation promotes "irregular" work

by John Torpey, *Institute for Labor and Mental Health*

Along with the rise of the automated office, the number of workers with non-traditional work schedules has spread rapidly. VDT users, especially word processors and data entry operators, are among the occupations most frequently filled by workers on part-time and temporary schedules.

The trend toward "irregular" work has been made possible by the transition to a service and information economy and the accompanying influx of large numbers of women into the paid labor force over the past two and a half decades. In clerical occupations, where the storage and retrieval of information are central aspects of the work, the explosion of automated office systems has allowed employers to reorganize the work process, breaking jobs down into their separate parts. Because workers no longer need an understanding of how their jobs fit into the "big picture," it is possible to assign these new compartmentalized tasks to irregular, temporary workers.

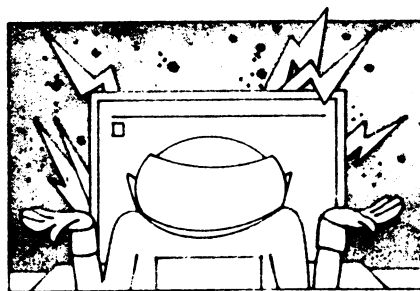
These changes tend to enhance the control of employers over the content and pace of work. Perhaps the best example of this is machine-pacing and monitoring, a common feature of VDT operators' work.

In 1981, eighty-five percent of the 3.35 million "temps" were women. Because women still tend to be looked on as "secondary breadwinners," the expansion of non-traditional work schedules is usually interpreted as an attempt to meet the needs of women in the economy.

However, there is much evidence to contradict the notion that workers prefer irregular work schedules. The Bureau of Labor Statistics (BLS) maintains that the number of those working part-time because they could find nothing else has risen substantially in the past 15 years. Other studies show that about half of all temporary employees quit "temping" once they find full-time work, indicating that this was their preference from the start.

These figures suggest businesses are restructuring their workforces to include more irregular employees. Why? Employers have good reason to make

this change. Irregular employees are not generally paid benefits, thus creating a large reduction in labor costs for the employer. A recent study by the U.S. Chamber of Commerce shows that benefit costs amount to 28.5% of total employee compensation. Most temporary employees do not receive any benefits because they are employees of a temporary agency rather than of the business where they actually work. And part-timers are often not entitled to the benefits extended to full-time staff.



Irregular workers also are considered to be more efficient than their full-time or permanent counterparts. Temps may be called in at peak periods in order to avoid paying overtime to regular staff, who are unlikely to perform up to their potential under such circumstances. Part-time workers' schedules can be arranged in such a way that the employer need not pay for breaks or other periods of "non-productivity."

Another reason why some employers prefer irregular employment arrangements is the fact that irregular workers are much less likely to join unions. For the temporary employee, such a move would seem virtually pointless because the duration of employment at any particular workplace is limited.

The shift toward part-time and temporary can have staggering economic consequences for those compelled to work such schedules. BLS statistics from 1978 indicate that families in which the primary wage earner was employed part-time involuntarily during the year accounted for 70% of those defined as poor by the government. Studies show that women, blacks and young people are over-represented among those who could only find part-time employment.

This increase in the number of part-time and temporary jobs is having the effect of reducing the number of full-time, permanent jobs actually available. While the absolute number of jobs might increase, a new, less visible, problem is created—underemployment.

Unless full-time workers and unions begin to involve more temporary workers in their efforts to improve working conditions, all workers will be increasingly impoverished by the tendency of businesses to hire fewer full-time permanent workers—to whom they must pay benefits—and a larger proportion of irregular workers.

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