volume 9

PLAINTIFF'S EXHIBIT

NSC-216

1972

National Safety Congress Transactions

ELECTRONIC and ELECTRICAL EQUIPMENT

NATIONAL SAFETY COUNCIL
425 North Michigan Avenue
Chicago, IL 60611

HOW TO BREAK PSYCHOLOGICAL BARRIERS TO EMPLOYEE SAFETY MOTIVATION

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Can anyone think of one good reason why we need to discuss safety motivation? Isn't it true that our product, "safe working hours," already has been "sold" to our customers—our employees? Of course it has, but there's no real mystery behind why we have to compete for the attention and acceptance of our customers in order to stimulate the action we want. It's all very clear once we understand it.

In merchandising consumer goods we have an enterprise that is organized, dramatized, vitalized, advertised and exercised. Is there any one of these things that cannot be used as an example of how to sell safety? Safety motivation is not an exact science to be solved by the technique of the slide rule. The solution is complex because our clientele is complex. People are different and so are the inner workings of their minds. What appeals to one individual will fall flat with another. So, if we are going to make headway at all, our safety motivation program must not be single-phased. It must be so designed that it will catch the interest of all. There is certainly nothing wrong with taking a page from the professional salesman's book if it will help to promote better safety in our plants. To spell it out:

1. Safety consciousness is our *enterprise*
2. Our safety program must be *well-organized*.
3. A good product (safety) deserves to be *advertised*.
4. Certainly it helps to have our program *dramatized*.
5. If we are to motivate people, it must be *vitalized*.
6. Eternal vigilance and persistence must be *exercised*.

Any consideration of "periodic safety stimulation" immediately raises the question of need. In appraising this factor, it is a universal human trait for people to become listless and lethargic under a steady diet of regular routine. History records, for example, that Chicago was content to drift along amidst the insecurity of dangerous fire hazards until it was stimulated to action by Mrs. O'Learys' cow. The monotony of occupying the throne of England was apparently quite satisfactory to Edward until Wally came along to stimulate his destiny in another direction. For a long while, the responsible persons were completely satisfied that the San Francisco mint was impregnable because it had been planned that way. It took two 15-year-old boys just a matter of minutes to jolt the nation from this overconfidence.

In the account of one of the all-time worst tragedies at sea, we learn that many of the guests danced, sang and laughed away the last few minutes of their lives unaware of the true peril of the sinking "unsinkable" *Titanic* after it already had struck the iceberg. Whether they could have saved their lives if they had understood the real situation will never be known, as many of them simply "refused to believe" it could happen to the "unsinkable" *Titanic.* Even Ferdinand the Bull was content with a very peaceful existence until a tiny bee catapulted him into the "Hall of Fame" for all bulls.

All the truths of life demonstrate a common tendency for people to lower their guard after becoming accustomed to the routine. The scientist calls it inertia, the psychologist calls it lethargy, and the safety engineer calls it potential danger. Accident facts reveal very clearly the habit of this common enemy to strike when it is least expected.

To oversimplify, accidents are simply a re-

sult of doing something the wrong way—either by doing something we *knew* was wrong but did it anyway, or by doing something we *did not know* was wrong. Ninety percent of all accidents fall in this first class—doing something we *knew* was wrong. That is why periodic safety motivation is so necessary if we are to present any semblance of an adequate defense.

But, just *knowing* why safety motivation is needed is not enough, any more than knowing the difference between what is right and wrong is enough to prevent accidents. Safety knowledge must be translated into safety "action." Knowing that periodic safety motivation is needed is not enough unless we can translate that knowledge into an action program that gets the results we desire. We may know *what* safety motivation is; we may even fully understand *why* safety motivation is needed. But, unless we know *how* to motivate employees to safe working habits, our knowledge of *what* and *why* is as useless as a sun dial in the shade or a parachute that opens on the second bounce. Our efforts are doomed to failure even before we start; there is no way to win unless we learn *how* to make Joe go!

In the prevention of accidents in our second listed classification—the 10 per cent that occur to employees who get hurt doing something we *did not know* was wrong—there are some basic principles we should briefly review. But first, let's concentrate our attention on the major concern: How to change the attitudes and habits of those employees in the 90 per cent class of accidental injuries where the cause was something we *knew* was wrong but the employee did it anyway.

First, let us dispose of 12 minimum things we must do to make certain the employee is equipped with the necessary "know how" to reduce risk of accidental injury. There are naturally other specific things that must be done in many instances, but in general we will *always*—

1. *Tell* the employee how to operate the job safely.
2. *Show* him how.
3. *Test him* to find out for certain if he really understands and actually can do it the way we showed him.
4. *Check* him periodically with *follow up* supervision to make certain he performs the job safely and as a matter of habit.
5. See he is instructed that *job safety* is just as *important* a factor as quality or quantity.
6. Make sure he fully *understands* that the violation of a safety practice is just as bad, or can even be worse, than any other rule he might break.
7. Insist that every employee has an *individual personal* responsibility in the overall safety program.
8. Reiterate that all accidents are *caused,* and in most cases can be prevented, by simple *forethought* on the part of the employee.
9. Stress that *safe work methods* are a matter of *habit* and can be developed merely by having the *proper attitude* in the first place.
10. See that mechanical safeguards are kept in place and used for their designed purpose.
11. Emphasize that horseplay on the job is usually dangerous and cannot be tolerated.
12. Demand that all injuries be reported and taken care of in the approved manner.

This is the basis of what we want our employee to know, but far more importantly to *use* in *all* instances. And, because we know human nature and human failure are the nemesis to our success, we must constantly strive to develop our skills in dealing with the problems of human engineering, so that we can supply motivational stimulus to achieve our accident prevention goals.

Without indulging in a lot of psychological mumbo-jumbo, there are many excellent books available dealing with the science of understanding human behavior and behavior modification. To improve your skills, you should, of course, get some of these and continue to develop the dimension of your understanding of this fascinating and important phase of living.

Let's approach our problem with appreciation for the "divinity of simplicity" and distill out of the vast analysis of the laboratory of human events some of the "nuts and bolts" of human engineering so we can learn how to project the image that instills confidence in

our effort and changes behavior patterns away from *unsafe acts* that cause 90 per cent of the accidents.

As unreasonable as it sounds, the worker may often intentionally indulge in unsafe acts because the advantages and satisfaction he gains at the moment seem greater to him than the apparent disadvantages. He may even have convinced himself that his way is actually a safe way, based on the old excuse, "I've always done it that way" and didn't get hurt.

A pattern of unsafe habits can develop because the worker actually gets *personal satisfaction,* or has some *personal incentive* for his behavior. He may intentionally want to "buck the establishment" and feel that so doing will gain approval or admiration of fellow employees who may admire his "guts" for not yielding to responsible authority.

Regardless of the validity of his reasons they do make "real sense" to him. So we must *first* be able to identify *his* reasoning and then displace it with a modified reasoning of *his* own. This new reason must be even stronger to *him,* if we are to get our point across.

There are some qualifying personal skills we are now ready to discuss if we are to be successful "people managers." They are:

Enjoy Your Work

We succeed in life by outperforming our competition, and since the experts tell us that we only use a very small part of our total capabilities, we need the powerful thrust of *enthusiasm* for what we are doing. We need this desperately to overcome the quicksand of procrastination that can only lead to failure if we allow it to limit our efforts and depreciate our results.

Have a love affair with your job. Look forward to Monday morning with the same eagerness that some people look forward to the end of the work week. Don't be content to be the person who "has a job"—be the type the "job has." Aim high. If you play for peanuts and win what do you get? *Peanuts*—because that was all you *expected.* Picture yourself a winner—if you can't succeed when you expect to win, you're sure going to wind up a loser if you start out with a feeling of defeat.

Someone said, "if you reach for the stars, you may never get a handful of stardust, but you will never come up with a handful of mud either."

Convince yourself that others just like you have tackled the job before and succeeded, and you will too. Set goals for yourself—95 per cent of the people who fail to realize their potential do so because they fail to establish personal goals.

Do the little things that get the big results—too many of us are awed by the enormity of the big things we really can't do, and not particularly inspired by the expected results of the little things we really *can* do. So we wander through life not doing anything.

By now you may be thinking, "This guy said he didn't want to indulge in a lot of psychological mumbo-jumbo and that's all we have heard so far—He sounds like Knute Rockne at half time or Vince Lombardi giving a pep talk to the Green Bay Packers before the championship game." Even if that is true, let me remind you that both those all-time great, great coaches were great for *one reason* in particular, and for a very *special* reason—not so much that they knew more football than their contemporaries, but mostly because they were able to inspire their team players so that each one felt a *compelling* sense of responsibility to deliver *maximum* effort in the execution of *every* play. These men very convincingly demonstrated how one person can stimulate another to improved performance. Then why can't we do the same? The answer is, of course, we *can* if we know what we are doing, if we enjoy what we are doing, and if we believe in what we are doing.

Before passing to another principle, let's quickly list some other things you must pay attention to if you are making an honest effort to enjoy your work. You must control your emotions. A contented worker has already learned that "anger" is only one letter short of "danger." It is much easier to swallow angry words than it is to eat them later. Anger is an acid that can do more harm to the vessel in which it is stored than to anything on which it is poured. Temper gets us in trouble and pride is what keeps us there.

If you would learn to enjoy your work, your central theme in everything you say and

do must be that you don't look at your job or responsibility as something you can get *out of.* Instead, you have a sense of appreciation for it as a challenge to get *into.* Let's take up another principle in the art of human engineering.

Negative Thinking Is A "No-No"

All the great achievements in history were accomplished by men who were positive thinkers. It is a waste of time to allow talent, energy and effort to go unused while giving attention to all the reasons why something *can't* get done. Success comes in *"cans"*—failure comes in *"can'ts."* If we read the lives of great men in history, we quickly learn that a common denominator—the key to success in each case—was the result of a single characteristic: call it dedication, commitment, drive, enthusiasm, desire, or whatever you choose. In the final analysis, it was this sense of compelling direction that locked the *full* capacity of that individual to a *single idea.* And that person was unwilling to even *slow down* in his progress toward his goal until its final achievement was realized.

Columbus could have turned back and nobody would have blamed him, but no one would have remembered him either. You see, all his contemporaries shared a common belief that the world was flat, that he could not reach his destination, and that even if he did, there was grave and serious doubt that he would ever return. Neither the hardship of his voyage nor the pleading of his crew could restrain him from his dogged effort to sail on, sail on and on.

A pessimist has been described as "a guy who feels bad when he feels good because he is afraid he will feel worse when he feels better"—a person who just paints dungeons in the sky and travels the entire journey of life emotionally seasick. Our theme song to discipline ourselves to develop positive attitudes can very well be taken from the lyrics of a popular song of some years ago—"You got to accentuate the positive, eliminate the negative, don't mess with Mister In-between."

Time: The One Thing We Can't Afford To Waste

You and I might go to the race track and bet two bucks on a horse. No matter how whimsical the manner in which we selected our choice, we could undoubtedly still quickly recover from our losses. In many ways in life, we can err in judgment and, with careful attention to subsequent events, recover from a bad experience. This is not so in our application of the time we are allotted on this earth. Whether we use it wisely or waste it wantonly, once it is gone we cannot buy it, beg it, borrow it, steal it, or recover it in any way; once it has ticked off, it is gone forever.

If someone were to open a bank account in your name and agree to deposit in it each midnight $86,400 with the condition that any unused balance could not be carried over, what would you do? The answer is obvious. I am sure you would make certain that every dollar allotted to you each midnight was spent in some way that was meaningful to you: planned investments, purchase of needed and desired items, and yes, even a quantity of it spent looking for pure pleasure. On the other hand, I am sure you would never leave an unused balance and allow it to be wasted because you did not place a value of some kind on spending it in your own interest.

Now, that is what is happening in terms of time. Every midnight for as long as we live, we each have 86,400 seconds deposited in our bank of time. No matter what we may have done with yesterday, we are free to choose how we will spend the next 86,400 seconds. Again, because it cannot be carried over, it becomes signally important that we spend every precious second as though it might never be replaced, because in the sequence of eternal events this ultimately becomes true for all of us. Now, I would not say that every second must be spent in work or some other totally productive activity. A balanced life calls for spending some of it on recreation. To renew ourselves. But it follows without further emphasis that it is a crime to waste time, to throw it away without filling it with something that is meaningful to us. I prefer to think that if you are going to kill time, you should work it to death. For remember, when you are killing time, you may be murdering an opportunity.

Early in Charles M. Schwab's career, he made a request of a consultant: "Show me how to make more effective use of my time and I will pay you anything reasonable." The consultant recommended that, at the end of each day, we write down the most important things we have to do. List them in the order of their importance. Each day when you start to work, give your attention to the most important on the list. Continue working to the completion of each of the listed items, in the order of their importance. Even though you may never complete the work listed, if you follow this plan you will always be performing the most important work first. No greater formula for success can be written. Charles M. Schwab sent the consultant a check for $25,000. He later said that this one single idea for time management was the most valuable lesson he ever learned in his entire career.

Two years ago, I spoke on the subject of time management before a group in Phoenix, Arizona. I made such a strong point of the value of time management that, at the conclusion of the seminar, some friends gave me a special clock to remind me of the occasion. The difference between this clock and any other I have seen is the fact that there are no numerals 1, 2, 3, 4, etc. In place of each numeral is the word *Now.* When someone comments on the clock or asks what time is it, I don't say it's five minutes till 12, five minutes until time to go to lunch, 20 minutes till four, 20 minutes till time to go home; regardless of where the hands of the clock are pointing, my answer is *"Now."* Do you fill your day with something that is meaningful to your life? For yesterday is a cancelled check, tomorrow is a promissory note, and *now* is the only time that is negotiable.

Humor: The Balance Wheel of Life

If you cannot laugh, you can never be happy. You can only be morbid. Laughter is the medicine you shake after you take it. I like to think of a sense of humor as being like that little lead weight that balances a wheel on an automobile. You have seen the effect of a wheel being out of balance—how it will pound the highway and the rubber will dish out and wear away. The life of the tire will be shortened many thousands of miles. Yet, a half ounce of lead weight, in exactly the proper position, will often put that wheel in perfect balance, and we find that it travels many more thousands of miles.

A sense of humor is like that lead weight. Laugh at the serious side of life, relax a bit when the going is tough, and your sense of humor will put your life in balance and keep you out of the ulcer patch, assuring you many more miles on the highway of Life.

Understanding: The Key To Cooperation

We must have the cooperation of our fellow man to have an effective safety program. We cannot expect his involvement or his support unless we first have his understanding. Communication is the key to understanding. We must therefore do everything reasonable to improve our ability to communicate the safety message effectively in all situations. We must be totally aware that there are many ways to communicate. In many instances the message the employee gets is not the one we intended. Good communications is a two-way street. A transmitter sending out a message has only achieved communication when a receiver is tuned in, and in the case of safety motivation, we hope the "receiver"—our employee—is not only "tuned in" but also "turned on" by the safety message.

Another point, not always emphasized in the art of communication, is the fact that you cannot *fail to communicate.* In other words, no response at all does not necessarily mean no message has been received. For example, management's failure to communicate the message to the employee, "replace that guard before operating the machine"—when the employee *knows the supervisor saw* the displaced guard—may actually result in a message framed in the employee's mind by the lack of adequate communication, "he *doesn't care* whether I have the guard on or not."

Sell Safety Everywhere All The Time

In order to be a leader, a successful persuader in any safety program, the supervisor must have made the "big sale" first. That is to say, it will do little good for him to know what his safety responsibility is if *he* is not *completely sold* on its importance in the scheme of things. When we have *made the "big sale" first,* all other selling of the safety idea be-

comes easy. We are a living, walking, talking example of our convictions. Nothing kills a safety sale quicker or deader than a bad example. Someone once said, "What you do speaks so loud, I can't hear what you say."

Innovate!

In this age of instant coffee, 30-second waffles, instant relief from acid indigestion, and pay day loans, nothing ever stays the same for very long. Yet, it is human nature to want to maintain a status quo. No safety program can survive the changing times without an appreciation of the fact that if the only reason we can find for doing something is, "We've always done it that way," it may be time for re-examination of a safety practice. A new idea may be more effective today. For, what was true yesterday may not even be relevant today and may be totally wrong tomorrow. I am not suggesting change just for the sake of change with no benefit. It is well to remember the axiom that you can have change without progress but you can't have progress without change.

Action Brings Satisfaction

Success breeds success. Therefore, in any safety program, the full value of the action that brought the satisfaction must be communicated. This serves as a constant recharger for our emotional battery. It keeps us energized and stimulated to do our best when, for some reason, our interest may have become dull.

Sincerity Is The Key

All the things we have said about the style of leadership required to sell employees on good safety attitudes, supervise them into good safety habits, set a good example, etc., will be as cold as yesterday's mashed potatoes if we lack sincerity in our dealings with employees. Everyone responds to *sincere* interest. We are repulsed by an insincere, saccharine-sweet message of our ego. You know the type person we are talking about—the one who spreads it on with a trowel. I have a friend who meets me downtown, whops me on the back, says, "Hi, Ken! How's Issy? How's Steve? How's things out at the office?" If he were sincere I'd respond. Those are among the most important things to me in the world: myself, my wife, my son, my job. I always answer him but he is so insincere that he doesn't even pay attention to my answers, and all the time I am answering he is patting me on the back saying, "good deal, good deal, glad to hear it." But he has already switched his attention to someone else, and while he is continuing to say, "good deal, good deal"—he is saying, "Hi Dave, how's things at the office, how's the family, etc." Some day I am going to fool that guy. When he slaps me on the back, just about loosens up two of my vertebrae and says, "How are things at the office, how's Issy, how's Steve?" I am going to answer him, "Well, you know I got fired, the office burned down, my wife divorced me, and my son in in the penitentiary." And, I know he is going to slap me on the back as I give those answers and say, "Good deal, good deal," and "Hi, Dave, how's things at the office."

Make Me Feel Important

The experts tell us from the cradle to the grave that man's great struggle is for status with his fellow man. Each of us learns daily, over and over again, the effect it has on us for someone to make us feel important. The personal satisfaction that results from someone making us feel important is so pronounced it needs no further elaboration but to express a simple rule. If we as safety leaders are to develop our ability to make people feel important, we must start out by feeling that they *are* important. There is no other way. We get things done through people. Ours is a *people* program. Just as surely as you cannot jump a chasm in two jumps, you cannot succeed in making people feel important without making the *big sale* first to *yourself.*

Magic Charm For Safety Supervisors

In summary, let me try to persuade you to one point of view. We have attempted to outline a system of motivating people to better safety habits. I have listed 10 basic principles to accomplish this aim. If you take the first letter in each of the separate principles, Enjoy Your Work, Negative Thinking is a No No, etc., you will find that the word those first letters spell is Enthusiasm. In my opinion, you *must* have enthusiasm for what you are doing. If you don't, you have about as much chance for success as a blind man, blindfolded, seeking a black cat in a darkened room when the cat isn't in there. If you disagree with the plan I have outlined because you don't think it will work for you, I will still feel that both your time and mine has been well spent provided we have stimulated you to do *something more* than you have been doing.

A farmer once asked a wise man for help in improving an unprofitable farm. The wise man wrote a charm on a peice of paper and sealed it in a box which he gave to the farmer.

"Carry this box into every part of your farm three times a day for a year," he told him.

The farmer did so. In the morning he carried it into the fields and found a hired man asleep instead of working. At noon, when he carried it into the barn, he found the cows deep in filth, the horses unfed. At night, he carried it into the kitchen and found the cook wasting food. Every day, as he took the box from place to place, he found things to correct.

At the end of a year he returned to the wise man. "Let me keep the magic charm another year," he begged. "My farm has been a hundred times more successful this year than ever before."

The wise man smiled and took the box. "I'll give you the charm itself," he said. He broke the seal, lifted out the piece of paper and handed it to the farmer. On it was written: "If you want things to prosper, look after them constantly yourself."

An effective accident-prevention program, like any other part of your job, requires your constant attention. To shorten the message of the magic charm to two-letter words that even *I* can understand, "If it is to *be,* it's up to *me.*"

HOW INDUSTRY CAN CUT COSTS OF EMPLOYEE HEART ATTACKS

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Over the past several decades business has spent millions of dollars and made considerable progress in the effort to reduce industrial accidents. But for every employee killed by an industrial accident or an industrial disease there are more than 50 who die of cardiovascular diseases. And first returns from a cardiovascular screening study by the Chicago Heart Association show that 30 per cent of business personnel examined have two or more of the six risk factors associated with a tendency toward heart attacks. This means that their chances of suffering an attack are at least ten times those of a healthy person.

It is not difficult to explain the marked difference between mortality rates from industrial accidents and losses from cardiovascular diseases. Compelling social and legal pressures over the years have forced the industrial accident curve further downward. Tough safety legislation and the threat of being held financially responsible for unsafe conditions contributed toward a happy solution for both labor and management.

On the other hand, progress in early diagnosis and effective control and treatment of heart diseases is a fairly recent development. If ever there were a challenging area for cost reduction in business, it is the early identification and treatment of employees who are in the high-risk zone for cardiovascular disease before they actually become cardiac patients—and before they are handicapped or lost as effective workers.

Is this an impracticable dream for large corporations? Not at all. Procedures and equipment exist today that are suitable for large-scale, convenient screening of adults for cardiovascular disease susceptibility. The equipment is mobile, the procedure takes only about 15 minutes for each person examined, and the cost is reasonable.

Some people consider heart disease more or less inescapable and an affliction of older persons. This is a fallacy. Heart and artery diseases take a significant toll from all age groups. Of the 1,010,812 deaths within the United States from cardiovascular diseases in 1966, 22 per cent were men and women between the ages of 45 and 65—the most productive segment of the nation's work force. Also, because men within this age group are more prone to heart attacks than women, the impact on the larger number of male workers is greater than the mortality statistics indicate. But, more important, the conditions that set the stage for a crippling or fatal stroke or heart attack are usually built up slowly and often imperceptibly. Therein lies the opportunity for effective control and treatment of cardiovascular disease-prone individuals.

There is evidence of increasing awareness by Chicago businessmen of inroads made by the heart disease epidemic on the working population. The screening program developed by the Chicago Heart Association has met with an enthusiastic response. The program, practically made to order for adoption by industry, is in the pilot stage, although over 8,000 personnel have already been screened by a team consisting of two registered nurses and two cardiovascular technicians. Since its inception in DuPage County in 1967, 20 major Chicago-area organizations—manufacturers, banks, insurance companies, and even the local staff of the Internal Revenue Service—have participated in the screening.

The modern screening procedure, unavailable only a few years ago, now makes it possible to carry out largescale health surveys on a systematic basis. The examination is simple, brief, and inexpensive. Prior to the examination the volunteer drinks a drink containing 50 grams of sugar. An hour later, his blood is drawn for measurement of plasma glucose and cholesterol. He is weighed, his blood pressure is measured, and he is checked by an ElectroCardioAnalyzer—a recently developed instrument that determines if heart rhythm and beat characteristics are within normal limits. If an abnormality shows up on the Electro Cardio Analyzer, an electrocardiogram is made by another instrument that provides a tape readoff. Finally, a questionnarie about his smoking habits and general health is completed. Later the results are analyzed and a confidential report is sent to him and to his doctor.

The screening is designed to detect abnormalities associated with a greater risk of developing a heart attack. Six risk factors are evaluated: (1) cigarette smoking; (2) elevation of serum cholesterol (the fatty material involved in hardening of the arteries); (3) elevation of blood pressure; (4) obesity; (5) diabetes; and (6) an abnormal electrocardiogram.

Studies of the first 5,000 examinees reveal that 30 per cent had two or more risk factors that could contribute to heart attack; and three or more risk factors were present in 10 per cent of the group. One risk factor at least doubles the chance of developing coronary heart disease. When two of the factors are present, the odds jump as high as ten or twenty fold, and the chances are about 50 per cent that persons in the triple-risk category will have a heart attack before they reach retirement age.

A closer look at the frequency of multiple risk factors shows that seven per cent of the men under age 40 and four per cent of the women in this younger age group have three risk liabilities. However, it is true that risk of heart attack increases with age. In the 40-65 age group, 17 per cent of the men and 13 per cent of the women have three risk factors. Four or more risk factors were seen in 7.6 per cent of men over 40 and 4.2 per cent of women. These individuals are truly in peril, and judging from the answers on the questionnaire filled in as part of the examination, many are unaware of their predicament.

The most common risk factor in the 5,000-member sample was cigarette smoking, affecting more than 55 per cent of men and 50 per cent of women under age 40. Among persons over 40, the smoking rate drops to 50 per cent for men and 40 per cent for women. This habit alone increases the chance of a heart attack two to five times.

The second most common factor was obesity, which was defined as being more than 25 per cent overweight. This was a greater problem for men than women. Thirty-one per cent of males under 40 and 42 per cent of those over 40 were obese. Among the younger women, 14 per cent had weight problems. The rate jumped to 34 per cent for older women.

High blood pressure was more common in men than in women, and incidence of this affliction rose sharply in both men and women above age 40. Ten per cent of males under 40 had high blood pressure, but the figure climed to 25 per cent in the older male group. For females, comparable figures were five per cent and 20 per cent, respectively.

High blood cholesterol was found in seven per cent of the younger men and in 18 per cent of those over age 40. Younger women showed only four per cent high cholesterol, but 23 per cent of those over 40 had this risk factor. This supports other evidence that cholesterol begins to build up even in youth. Childhood is not too soon to start watching the amount of saturated fat in the diet and to form proper eating habits early in life.

High blood sugar affected both sexes equally, and was found in about 3.5 per cent of the young group and 10 to 12 per cent of those over 40. This test does not determine whether a person has diabetes; however, a positive blood sugar reading does indicate the need for further examination by a physician.

Electrocardiographic abnormalities were common, ranging from 18 to 25 per cent of the total sample. There was a wide variety of findings among these abnormalities, from non-specific to significant.

One of the most alarming results of the screening is that a great majority of those

with high blood pressure, high blood sugar, or an abnormal electrocardiogram are unaware of their condition.

Although it is utterly wrong and misleading to credit modern medical research with a capability—as a national magazine did recently—of promising "no more heart attacks" in the near future, it is nevertheless true that proper treatment and preventive measures available today can lower the danger significantly. Fortunately, most risk factors can be controlled through medication or altered living habits. A person can stop smoking and reduce if overweight. His doctor can advise a sound plan of regular exercise and can prescribe medication to help correct hypertension or diabetes. And, most amenable to change of all, a high-fat diet can be altered to one with less saturated fats and high cholesterol foods, which promote atherosclerosis (hardening of the arteries).

There is no universal agreement among doctors about the importance of diet in the prevention and treatment of heart diseases. Irvine H. Page, M.D., senior consultant to the Cleveland Clinic and Jeremiah Stamler, M.D., executive director of the Chicago Health Research Foundation, writing in a scientific publication, point out that there are two extreme points of view among physicians: "Diet is nonsense, and diet is crucial, ... no one has irrefutable evidence of either."

However, as Page and Stamler say, many physicians believe it wise to initiate prophylactic programs now—in view of the strength of evidence—rather than to wait ten or 20 years until definite proof is forthcoming.

There is no question that considerable motivation is required for adults to change their eating habits. Also, the most effective way to protect Americans from their atherogenic diet would be for food processors and producers to effect the change at the source. However, this is not likely until more positive proof is available and sufficient public pressure can be generated.

Control of saturated fat and cholesterol requires attention to five categoreis of food in the American diet; high fat meats, high-fat dairy products, commercial baked goods, spreads (butter, lard, older type margarines) and egg yolks.

A "crash" approach to saturated fat and cholesterol control is not recommended. Actually, a person can observe certain dietary changes and eat very well indeed. A healthy diet from a cardiovascular standpoint can be one with tasty, appetizing gourmet food—although it is not an inexpensive bill of fare.

Further, it should be recognized that one cannot and should not eliminate cholesterol from any diet. Cholesterol is a normal substance in the body, and certain amounts are required for good health. It is an excess that is harmful. A sensible diet control program involves emphasis of certain foods and de-emphasis of others rather than rigid exclusion or avoidance in most cases.

According to Page and Stamler, the recommended eating pattern (which should be combined with calorie control for persons who are overweight) "... emphasizes moderate quantities of lean meats and poultry (round steak, veal, game, chicken, turkey), fish and sea food, skim milk, cottage cheese, whole grain or enriched flour products, fruits (including citrus), and vegetables (including dark green and yellow), vegetable oils, and the new soft margarines in modest quantities during the months of weight reduction. To be de-emphasized are fat cuts of meat, table spreads, and solid cooking fats (butter, older-type margarines, suet, lard, hydrogenated vegetable fats, bacon, salt pork), and cooking methods involving the addition of solid fat rather than its removal. Also to be de-emphasized are alcoholic and carbonated beverages, cheese, cream, ice cream, whipped cream, sour cream, eggs, and "rich" foods (pastries, pies, cookies, cakes, etc.)—foods that are high in calories per forkful because of their high content of processed fats and refined carbohydrates, and low in nutrients."

Persons desiring more information on low-fat and low-cholesterol diets may write the Chicago Heart Association, 22 West Madison Street, for free booklets, which include excellent recipes for specific dishes.

The Chicago Heart Association estimates that its pilot screening project costs about $12 per examinee. However, supervision of the program and evaluation of screening tests by qualified doctors have been accomplished by Association members without charge. Also, the Chicago Health Research Foundation and the Chicago Board of Health have cooperated in making the blood test on a no-cost basis. Thus, the cost of administering such a program as part of a company health program would vary in each situation, and would probably run higher than the basic Heart Association estimate. At the same time, it seems clear that an adequate screening program could be established in industry at costs that would not compare with the expense of locating, hiring and training employees in the current tight labor market to replace cardiovascular casualties. A systematic screening program is an irresistible bargain.

Depending upon the size and resources of an individual business, some thought might be given to implementing at least a partial screening program if the full-scale effort were judged impracticable. For example, a part-time nurse could check blood pressures, height and weight, and smoking habits; and literature apprising employees of heart disease risk factors could be disseminated as part of the organization's internal information program.

Aside from cold dollars-and-cents benefits, a significant social and humanitarian contribution would accrue from any program increasing the frequency of medical evaluation among workers who tend to visit a doctor only if they are injured or acutely ill. In dealing with the American epidemic of heart and artery diseases, there is no better way of putting it than the old saw, "an ounce of prevention is worth a pound of cure."

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