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How Change Can Make Us Ill
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Stress and the Family

9. How Change Can Make Us Ill

COOPERATIVE EXTENSION SERVICE • MICHIGAN STATE UNIVERSITY

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The average person has about two acute illnesses per year, according to Public Health Service statistics. These ailments require going to the doctor about four times and keep the person feeling under the weather for a total of about a week.

Most of these health changes represent more inconvenience than serious threat. However, during any given year, 10 percent of the population will spend some time in the hospital (not including maternity cases).

The problem might be a serious illness, such as tuberculosis, a heart attack or high blood pressure. But the word "illness" is really too limited, so the term "health change" is usually used in this article.

We rarely think of a car accident or a suicide attempt as an illness. Surgical operations are not illnesses. But all of them involve a certain disruption of the state of health and functioning.

Psychiatric disorders such as depression and schizophrenia involve more than emotional imbalance. Depressed people, for example, almost always experience marked decreases in appetite and sex drive, along with weight loss, insomnia, fatigue and constipation.

The sophisticated instruments and laboratory tests we use to diagnose these ailments still do not tell us what accounts for individual susceptibility to illness. When the London or Asian flu comes around, not everybody gets it. Of those who do, some need to be hospitalized and may even die, while others have little more than a stomachache. Not every heavy drinker becomes an alcoholic; not every alcoholic gets cirrhosis of the liver; not every cirrhotic even gets diagnosed.

We say that we get sick when our resistance is down, but resistance is hard to define. Is it related to fitness? Probably, but it is not unusual to read of an athlete or a

coach, in the best of shape, dying suddenly of a heart attack. Conversely, many frail and sedentary people live to ripe old ages.

Is resistance related to mental attitude? Probably, but the most devout clergymen are heir to the same ailments as the rest of us. And we all probably have a hypochondriacal relative who has been expecting to die for 40 years.

Is resistance related to exposure to illness-producing agents? Probably, but most people who work for years in sanatoriums don't get tuberculosis.

Whatever the contributing factors, when our resistance goes down our risk goes up. One approach to the problem of what determines the behavior we call sick is to find a measure of risk, or susceptibility, to health change.

Given the rapidly accelerating pace of life today, with one national crisis after another, with an unpredictable job market and social and political instability, one thing that touches us all is change. More and more of us are moving from small towns to urban areas; we move frequently; we eat on the run; we grab a nap when we can; we change jobs; we change spouses. Even those of us who stay put most of our lives have to contend with change. Our children are bussed to school; they grow up and leave home; our parish church is torn down to make way for a supermarket; property taxes go up; our old friends get sick and die; we make new ones.

The routine of our lives is constantly being revised. We have to filter incoming stimuli, assign them priorities and try to fit them into our own way of life. If we refuse or are unable to deal with this input, our circuits may become overloaded with a massive life crisis and our systems are at great risk for a breakdown in function.

Alvin Toffler has popularized this phenomenon under the general heading of *Future Shock*, which he defines as "the distress, both physical and psychological, that arises from an overload of the human organism's

physical adaptive systems and its decision-making processes." This idea has been around for many years. Adolf Meyer, professor of psychiatry at Johns Hopkins, recognized this idea around the turn of the century and began keeping "life charts" on his patients. They were abbreviated biographies that showed time and again that people tended to get sick around the time when clusters of major events took place in their lives. The concept was expanded in the 1940's and 1950's by the late Harold G. Wolff, professor of neurology and psychiatry at Cornell University Medical College, who studied intensively the life settings and emotional states surrounding many specific illnesses and symptoms.

In 1949, Dr. Thomas H. Holmes [a coauthor of this chapter], after working with Doctor Wolff at Cornell, began to apply Doctor Meyer's life chart idea systematically to the case histories of more than 5,000 patients. A number of life-change items were found to occur over and over and tended to cluster in the brief time period just prior to the onset of major illnesses. The items are listed in the chart shown here. They constitute various interactions of people with their environment, and make up essentially all the changes in life situations that we have to deal with, or reflect the fact that salient changes have occurred.

| Live Event | Mean Value (points) |
|---|------------------------|
| 1. Death of spouse | 100 |
| 2. Divorce | 73 |
| 3. Marital separation | 65 |
| 4. Jail term | 63 |
| 5. Death of close family member | 63 |
| 6. Personal injury or illness | 53 |
| 7. Marriage | 50 |
| 8. Fired at work | 47 |
| 9. Marital reconciliation | 45 |
| 10. Retirement | 45 |
| 11. Change in health of family member | 44 |
| 12. Pregnancy | 40 |
| 13. Sex difficulties | 39 |
| 14. Gain of new family member | 39 |
| 15. Business readjustment | 39 |
| 16. Change in financial state | 38 |
| 17. Death of close friend | 37 |
| 18. Change to different line of work | 36 |
| 19. Change in number of arguments with spouse | 35 |
| 20. Mortgage over \$10,000 | 31 |
| 21. Foreclosure of mortgage or loan | 30 |
| 22. Change in responsibilities at work | 29 |
| 23. Son or daughter leaving home | 29 |
| 24. Trouble with in-laws | 29 |
| 25. Outstanding personal achievement | 28 |
| 26. Wife begin or stop work | 26 |
| 27. Begin or end school | 26 |
| 28. Change in living conditions | 25 |
| 29. Revision of personal habits | 24 |
| 30. Trouble with boss | 23 |
| 31. Change in work hours or conditions | 20 |
| 32. Change in residence | 20 |
| 33. Change in schools | 20 |
| 34. Change in recreation | 19 |
| 35. Change in church activities | 19 |
| 36. Change in social activities | 18 |
| 37. Mortgage or loan less than \$10,000 | 17 |
| 38. Change in sleeping habits | 16 |
| 39. Change in number of family get-togethers | 15 |
| 40. Change in eating habits | 15 |
| 41. Vacation | 13 |
| 42. Christmas | 12 |
| 43. Minor violations of the law | 11 |

Some of the changes in life situation and life style are socially desirable and some are undesirable. We are all aware of the drain on energy and resources associated with such "stressful" events as divorce, troubles with the boss and death of a spouse.

But not all life changes are stressful in the usual negative sense. What could be more gratifying to a singer than finally to hit the big time? Concert tours, recording dates, parties, money and meeting famous people may represent all his dreams come true. But the way he lives his life will be radically changed. Think of the many changes brought about by the happiest marriage. Even a long-awaited vacation requires certain changes, if only for a relatively short time—eating in restaurants instead of at home, sleeping in a sleeping bag instead of a bed, snorkeling or playing tennis for the first time. Whether "positive" or "negative" to our way of thinking, all such events require us to cope, adapt or change to some degree.

The numbers in the right-hand column of the chart represent the amount, duration and severity of change required to cope with each item, averaged from the responses of hundreds of people. Marriage was arbitrarily assigned the magnitude of 50 points, and the subjects then rated the other items by number as to how much more or how much less change each requires in comparison with marriage. For instance, the scale implies that losing a spouse by death (100) requires, in the long run, twice as much readjustment as getting married (50), four times as much as a change in living conditions (25), and nearly 10 times as much as minor violations of the law (11).

The more changes you undergo in a given period of time, the more points you accumulate. The higher the score, the more likely you are to have a health change. All the kinds of health changes previously discussed—serious illnesses, injuries, surgical operations, psychiatric disorders, even pregnancy—have been found to follow high life-change scores. And the higher your score, the more serious the health change will likely be.

Doctor Richard Rahe, for example, studied the illness patterns of some 2,500 officers and enlisted men aboard three navy cruisers. He found that the 30 percent of the men with the highest life-change scores developed nearly 90 percent more first illnesses during the first month of the cruise than the 30 percent with the lowest scores. During each subsequent month of the six-month cruise, this upper 30 percent consistently reported more illnesses than the lower 30 percent.

What's your own risk? Take a moment and add up the score for all the items that applied to you in the last year.

If you scored below 150 points, you are on pretty safe ground—about a one in three chance of serious health change in the next two years. Remember, you already have a 10 percent chance of winding up in the hospital some time during the year. If you scored between 150 and 300 points, your chances rise to about 50-50. The

odds on Russian roulette are better than that. If you scored over 300 points, be sure your health insurance is paid up—your chances are almost 90 percent.

For illustration, let us take the case of that hypothetical singer mentioned earlier who finally makes it big.

As the royalties begin to roll in (38 points) from his first hit record (28), he decides that his image needs updating, so he buys a new wardrobe and lets his hair grow long (24). He begins to work longer and longer hours in the recording studio for his new album (20) and then departs for a three-month concert tour, staying in hotels and living out of a suitcase (25). He attends an endless string of parties and sees his old friends less and less (18). Concerts and parties keep him up most of the night, so he takes to sleeping in the daytime instead (16). He has to stay on a strict diet to avoid getting paunchy and has to give up his beloved chocolate eclairs altogether (15). Whereas he used to play tennis twice a week and go sailing on weekends, now the most exercise he gets is tuning his guitar (19). His wife, initially delighted at the new excitement, finds she is really not a part of his new life, despite the fact that they have moved (20) into a new home. The couple argue more and more (35) about the time he spends away from home and their sexual relationship deteriorates (39).

The singer has accumulated 297 points in a short period of time. If his wife now begins seeing a psychiatrist (44) and files for a legal separation (65), he will find himself firmly in a position of high risk for experiencing some major change in health. In his particular profession alcoholism or other heavy drug use might be a likely possibility, but he might just as easily develop a bleeding ulcer or fall of the stage one night and break his leg.

Even if he tries to work things out with his wife by taking her to Europe on a vacation (13) and achieves a reconciliation with her (45), if he tries to go back to his former life style it will only involve further changes in many of the spheres he has already experienced.

It all sounds pretty grim. But there may be ways in which you can soften the blow. Change is not entirely random. You have a large amount of personal control over whether and when to marry, go to college, move or have a family. You may have little or no control over whether to get divorced, change jobs, take out a loan or retire. But you may have a pretty good idea of when these events might take place.

So the future is not a complete blank. You can predict it to a certain degree. And to this degree, you can order your life by managing the change that is a vital part of living. You can weigh the benefits of change against its costs, pace the timing of inevitable changes and regulate the occurrence of voluntary changes to try to keep your yearly life-change score out of the danger zone.

If you are considering your third job change in two years, you might stay put for a while and consider a

more long-lasting alternative. Or if divorce is imminent, you might avoid the temptation to plan to remarry right away and give yourself time to sort out the implications of all the changes that divorce brings with it. If you are approaching 65, a gradual rather than sudden transition from full-time work and responsibility could help reduce the feeling of uselessness that often accompanies retirement.

Life change is not something that you should avoid. After all, there are worse things in life than illness.

Changing, adapting and evolving help all of us to live our lives to our fullest capacity and enjoyment. But too much change in too short a period of time takes its toll on the adaptive capabilities of the human body, lowers resistance and increases the risk of major changes in health.

If you can learn to regulate the major changes that inevitably affect you, you may yet be able to defuse their consequences.

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