Psychology of Personality and Individual Differences: Theory and Applications

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Week 12

Lecture 28: Personality, Stress, and physical health

I welcome you all to Module 12 of this course. This is the first lecture of Module 12. It is about specific applications of personality psychology. We have discussed the different dimensions, aspects of personality psychology, theories, and so on. In this last module—the final one—we will look at how personality psychology has specific applications in various domains of life.

In today's lecture, we will discuss how personality is connected to physical health. We will explore how personality dimensions can contribute to or influence our physical health. This is Lecture 28 and the first lecture of this module. To give you a brief recap of the last lecture, it was about positive personality traits. In that lecture, we discussed the concept of kindness as a positive personality trait. We explored the meaning of kindness and its different aspects. We also discussed the evolutionary mechanisms of kindness—how evolution promotes certain kinds of behaviors because they are necessary for species' survival. We examined the relationship between kindness and happiness and why they are connected. We also discussed some of the possible reasons why kindness promotes happiness. At the end, we discussed practicing kindness and what some aspects of it are.

In today's lecture, we will be talking about how personality can be linked to physical illnesses. In the next lecture, we will be talking about mental health and so on.

We will be talking about some of the personality traits related to healthy and unhealthy behaviors. We will be focusing on one specific personality trait of the Big Five Factor called conscientiousness and how it connects to health. We will be talking about Type A and Type B personality traits and how they are related to cardiovascular diseases. So these are some of the things that we will be talking about in today's lecture. So let's start.

When we talk about personality being related to illness, we are focusing on physical illnesses. Some of the possible relationships or connections between personality and illness are described by researchers like Suls, Rittenhouse, and others. They proposed four possible mechanisms by which personality can be connected to illnesses. Let us see what these four possible mechanisms are.

Number one is that personality can be a causal factor in illness. For example, certain personality traits might directly affect physiological processes, leading to increased susceptibility to certain illnesses. A lot of the psychological personality traits have a very strong biological component to them. Because of certain traits, one can experience a lot of stress, anxiety, and neuroticism in their life.

This trait is directly connected to the physiological reaction of the body, and because of certain traits, you are more likely to experience things like anger and stress, because of this physiological impact of stress and anger, and if you have a personality trait, you are more likely to experience it again and again in your day-to-day functioning—which may lead to certain diseases. For example, high levels of hostility and anger in certain personality traits associated with Type A people, which we will be talking about in detail in this lecture, are linked to cardiovascular disease. It has been found that people with Type A characteristics, which include high levels of hostility and anger, are more likely to experience heart disease. So, like this, certain personality traits can directly cause certain diseases.

Second, there can be a correlational link between personality and illnesses. Certain research shows that there can be a correlational link, meaning it is not a causal factor, but they are correlated to each other positively. For example

So, in this case, there may be a correlational link between personality and health or illnesses. This suggests that the same biological processes might underlie both personality traits and illness outcomes. It is saying sometimes the same biological reason is causing the disease and the same reason is causing the personality trait also. So, the causal reason behind the personality and the illnesses is the same factor. For example, Mathews provided an example of certain cases of coronary heart disease.

An individual might have a genetic predisposition to develop heart disease and this same genetic factor could also predispose them to be a hostile person. So what they are saying in certain cases, the same gene is causing both heart diseases and is causing people to be more vulnerable to heart disease. No gene directly causes any disease, they make you more prone.

The same gene is causing certain expressions of personality like hostility and anger. So, both anger or trait of personality and a disease like heart disease are connected to the same underlying factor. That's called a correlational connection between personality and illnesses. In this scenario, there is a positive correlation or association between a high level of hostility and cardiac disease.

However, the relationship is not causal because the cause is something else. Instead, both the illness and the personality trait of hostility are thought to be caused by some underlying genetic factor. Both are correlated because one is not causing the other, but both are caused by some third factor. That is some genetic predisposition. So, in that sense, sometimes personality can also be correlated with certain illnesses.

The third reason is that there is an indirect influence of personality on illness through behaviors. Personality and illness are not directly linked; personality may not cause illnesses, but because of certain personality traits, people are more likely to engage in certain behaviors. And those behaviors can increase certain illnesses. For example, certain personality traits may lead individuals to engage in specific behaviors that influence their health and increase the risk of illnesses. For example, an individual with a high need for novelty and excitement—a trait in psychology called sensation seeking. It's a characteristic of some people. These people always want more novel and exciting experiences in their lives. They seek more sensations in their lives. Such people because of their behavior, may be more likely to engage in certain behaviors like illegal drug use or substance abuse compared to people who are low in sensation seeking. So because of this trait, these people seek more sensations and new experiences in their lives. They may be more likely to engage in behaviors that are harmful to their health, such as drug use or substance abuse.

Sometimes certain traits can indirectly lead to certain diseases through certain behaviors. Not directly causing but indirectly through behaviors. That could also be another mechanism.

Fourth, sometimes it can also be the opposite: certain physical illnesses can change a person's personality. Illness can change their entire personality. The experience of being ill can also shape an individual's personality over time. Sometimes people change because of the illness. Chronic illnesses, particularly long-term ones, might lead to changes in traits such as increased anxiety or depression as individuals adapt to their new realities. Sometimes these chronic diseases—those that are very long-term, like terminal illnesses such as cancer and so on—can change the trait level characteristics of people. It can increase anxiety levels, and depression levels, among individuals who were not like that earlier but because of this disease. So having chronic conditions like severe arthritis may result in persistent pain in the body which can lead to significant lifestyle and psychological changes. Individuals with chronic arthritis may go out less, feel less sociable, and worry more about the future and their ability to cope with daily activities. Because of the limiting

conditions of the diseases, people's characteristics can also change to adapt to these new realities associated with the diseases.

Some researchers also examined the effects of acute health crises such as heart attacks and chronic illnesses and concluded that such events can significantly change people's personalities. This is sometimes conceptualized as a psychosomatic link where physical changes in the body influence the patient's mind. There is a mind-body connection that we all know that the mind can influence the body, and the body can influence the mind.

These are not completely segregated entities. Each can contribute to others or influence others. What happens in your mind can influence the body. When you feel anxiety, and stress, there are a lot of changes in the body. Hormones get released in the body and it impacts your digestive system, heartbeat increases, and so on.

Constant interactive entities—both can interact with each other all the time. This is what we discussed, shown here in this diagram: the four possible mechanisms of how personality can be linked to health. So, one's personality can directly cause illness through biological activities. Because of certain personality traits, certain changes happen in the body.

If you are high on neuroticism, you are more likely to experience stress and anxiety, which may contribute to certain diseases. Sometimes these are correlated to each other—personality and illness—because both are connected to one biological factor, which could be some genetic factor. So, correlational link. The third mechanism we discussed is how personality can influence your illnesses through behaviors. People with certain traits are more likely to engage in certain behaviors. Some behaviors could be health-promoting, or some people are more likely to engage in health-deteriorating behaviors. Like, as we gave an example, sensation-seeking people may be more likely to experiment with drugs and substances, which can deteriorate their health. And the last one is that sometimes illness can change your personality, especially chronic illnesses and so on.

So these are the four possible ways how physical health is connected to personality. Now let us see a more elaborate explanation of some of these pathways. One is how personality is linked to body physiology or bodily mechanisms. One is through the stress response. Certain personality traits like neuroticism can lead to heightened stress response. People because of certain mental characteristics are more likely to experience stress in their life. People who have the trait of neuroticism are more likely to experience nervousness and stress because of whatever they encounter in their lives as compared to those who are low on this trait.

Because of this high-stress response, when we experience stress in the mind, it leads to many physiological changes in the body. It may lead to the release of many hormones like cortisol, adrenaline, and so on. These hormones when they remain in the system for a long time can cause many diseases including heart diseases, suppression of the immune system, and so on. In that way, certain personality traits can directly cause changes in the physiology of the body and contribute to the deterioration of health or lead to certain illnesses such as cardiovascular disease, weakened immune system, metabolic disorder, and so on.

Second, immune system function is also related to certain traits. As we have already discussed, people high in certain traits experience more stress in their lives, which in turn releases hormones like cortisol. This hormone can deteriorate health, especially under chronic stress. If stress persists for a long time, continuously, or frequently in your life, it can reduce or suppress your immune system.

This hormone directly reduces WBC cells in your blood, which are responsible for protecting your body. The immune system can also weaken because of certain personality traits. In this way, they can contribute to illnesses and so on. This is one way they can directly change your body's physiology and cause physical diseases. Another thing we discussed is that personality can lead to certain tendencies or behavioral tendencies related to health. These are called health behaviors. Personality can influence your health behaviors, either promoting healthy behaviors or health-deteriorating behaviors, and that can indirectly lead to the progression of diseases and so on.

While some traits do not directly cause physiological processes, they increase the risk of illnesses such as narrowing of coronary arteries and impairment of immune function. Some personality traits may not directly cause these physiological changes, but they can indirectly influence health by affecting behavioral risk factors. Not all personality traits directly cause changes in the physiology of the body, but some personality traits could cause changes in the behavior of the person, which may lead to diseases. For example, personality traits associated with smoking, excessive drinking, or risky sexual practices are indirectly linked to the health problems associated with these behaviors. Certain traits that may promote these behaviors—like smoking, excessive drinking, and so on—will be detrimental to your health and can cause certain diseases. Research suggests that more extroverted people—those who are very outgoing—and neurotic individuals—those who experience high stress or are emotionally unstable—are more likely to be smokers, thus increasing their health risks related to smoking.

People with certain personality traits are more likely to engage in things like smoking, substance abuse, and so on. Additionally, sensation-seeking individuals—which we talked about earlier—are more likely to engage in risky sexual behaviors, making them more prone to contracting certain kinds of diseases or venereal diseases. In that way, personality traits influence certain tendencies or behaviors which can promote other kinds of diseases. Personality significantly influences health behaviors, impacting overall health and longevity.

Individuals with certain personality traits tend to face greater health risks, leading to earlier mortality. They are more likely to die early because of certain risky behaviors. This relationship is complex, as external factors like accidents can also occur randomly. Some random factors could also be there, but some factors could be connected to personality traits.

Personality traits can predispose people to risky behaviors, as we have seen in some of these examples. For example, those who are lonely, depressed, or impulsive are more likely to engage in hazardous activities, such as crossing busy streets carelessly, driving late at night without a seatbelt, using illegal drugs, and so on, which have an impact on health. Essentially, personality shapes behaviors that create healthier or more dangerous habits in an environment. So, personality traits can mold one's behavior or promote behaviors that can lead to healthy habits or more dangerous or negative behaviors. Both can be possible. Smoking cigarettes and drinking alcohol are well known to be associated with various personality traits, like rebelliousness, aggressiveness, alienation, low self-esteem, and impulsivity. Some of the traits that we discussed here are these: people are more likely to engage in smoking cigarettes and drinking alcohol, if they are more aggressive, alienated, have low self-esteem, or are more impulsivity.

And we know that smoking and drinking too much alcohol can cause many health problems. These behaviors often originate from personality and social issues in childhood. This can lead to substance use in adolescence. Many of these issues can arise during childhood and then continue later in one's life. Consequently, these unhealthy behaviors increase the risk of health problems and premature death for such individuals. This is how personality traits could make people more vulnerable to diseases, early death, and so on.

In addition to being associated with behavioral risk factors for illnesses, some personality traits are linked to preventive and protective behaviors or health-promoting behaviors. We have discussed that certain traits could lead to illness-promoting behaviors, which can

make you more prone to illnesses and diseases. On the other hand, certain personality traits could be the opposite, in the sense that they can promote preventive and protective behaviors or health-promoting behaviors.

For example, the personality trait of conscientiousness is one that we discussed in the Big Five Factors model. It is very strongly linked to health-promoting behaviors. People with strong conscientiousness are more likely to engage in positive behaviors or health-promoting behaviors. Optimism enables effective coping with stress, and extroversion is associated with efficiently seeking social support. People with higher optimism are also found to cope with stress in a much better way.

People with more extroverted qualities are also more efficient in seeking support from other people. This can also promote certain behaviors which can promote health and so on. Another way in which personality can influence health through behavior is that certain personality traits can influence recovery and the risk of recurrence of illnesses. Personality traits can also promote recovery from illnesses and so on.

Certain dispositions or traits that make individuals less likely to comply with medical treatments such as impulsivity or low conscientiousness are associated with lower or slower rates of recovery. People with low conscientiousness recover from illness slowly because they don't comply with the medical treatments or the kind of medicine they need to take regularly. So, people with higher conscientiousness are more likely to recover from illnesses much faster because they will comply with the medical treatment process and so on. Additionally, people's habitual coping styles influence how well they respond to the stress of illness and their likelihood of experiencing recurrence.

How people react to stressful situations can influence how they respond to the stress of illness because every illness is stressful. No one likes to be ill. How they deal with the stress of illnesses will also influence whether they are recovering or not. If they can manage and cope with the stress in a better way, they are more likely to recover faster.

Certain traits could be associated with recovery, risk of recurrence of illnesses, or reduce the risk of recovery or recurrence of illnesses. In summary, there can be a variety of ways in which personality can link to illnesses, directly causing or indirectly influencing behaviors and in many other ways also. It can also influence your recovery process. It can influence or promote behaviors that are good for health. Just to summarize, this is the diagram that shows how personality traits are linked to physical illnesses in so many

possible in-between factors that can link to physical illnesses. Personality traits can promote recovery and the risk of recurrence of illnesses.

Personality traits can directly influence biological factors and directly cause illnesses or reduce illnesses. Too much stress can lead to the release of cortisol hormones, which can promote certain diseases like heart disease and so on. Personality traits can influence health-promoting behaviors. Some traits can promote behaviors that are good for preventing diseases, like seeking regular medical checkups and so on. People high in conscientiousness generally engage in more health-promoting behaviors.

Personality traits can lead to certain behavioral risk factors such as people with certain traits are more likely to smoke and drink and so on. These are all possible mechanisms that we had discussed. Now let's look in a little bit of detail at how personality traits are linked to unhealthy behaviors and why it is linked.

Most people with difficulties in emotional regulation may turn to substances like cigarettes, alcohol, and drugs as well as unhealthy foods to alter their physiologically based moods. How it is linked to personality is that many people with certain traits like not being able to regulate their emotions or being overwhelmed by emotions, are not able to cope with the emotions, which could be linked to some traits related to neuroticism and other things. And many times, these kinds of substances could change their biologically based mood.

They get into those kinds of behaviors because it gives them a sense of good, positive mood for some time. For instance, those who frequently feel sluggish might seek stimulating substances. They feel more excited. On the other hand, neurotic people may prefer some drugs that are tranquilizing or reduce anxiety. So both reasons could lead them to use substances and so on.

Sometimes these traits and characteristics—physiological and mental—could lead to certain unhealthy behaviors. And the reason is that they are seeking to change those moods with certain substances. Another important reason is that social factors also promote unhealthy behaviors. For example, a very alienated or rebellious teenager might join a peer group or gang that uses drugs or engages in risky behaviors, like riding fast motorcycles and so on. The kind of environment someone is placed in can also influence their behavior.

Social factors play a very important role. If someone is, especially in the teenage group where people do not have much self-regulatory behavior, they may, if they find a peer group or a gang who uses drugs and engages in risky behaviors, or especially if that

teenager is alienated or lonely and not getting the right kind of support system, or a rebellious teenager who is not listening to anyone, can indulge in such behaviors. Sometimes the support system is there, but the person is not listening. Some people are rebellious or alienated by nature, so they are more likely to if they get that kind of peer group, engage in those behaviors where they use drugs and take risks. If the same teenager found purpose in some other peer group engaged in productive environmental activities, religious peer groups, or political movements, their behaviors may be directed in positive directions.

Sometimes the kind of social factors they find themselves in can also lead to certain behaviors, which may be problematic in certain cases. Research shows that this one particular trait, conscientiousness, is a very strong, reliable predictor of health, particularly because it promotes many positive characteristics or health-promoting behaviors, and it enhances health as well as longevity. That is also predicted by that.

We will be looking at this dimension in a bit more detail because a lot of research shows it has a very important health-promoting characteristic, and the lack of it leads to health-destructive behaviors. Many unhealthy behaviors that increase the risk of medical problems are triggered by stress, which is particularly problematic for impulsive or emotionally unstable individuals. Especially people who have a trait of emotional instability, like neurotic people, or people who are very impulsive because that is their personality trait, are particularly at higher risk of medical problems because they are more likely to experience stress, which we discussed, and it may worsen medical problems. Stressed individuals often eat more and gain excessive weight, which may have a lot of biological reasons, stimulated by the hypothalamic-pituitary-adrenal axis. It is a stress response axis that leads to the release of hormones such as cortisol. Obesity, chronic stress, and chronic inflammation are linked to various diseases. So certain personality traits are more vulnerable to such diseases because they are more likely to experience stress in their lives due to that trait and stress could have all these implications. These are some of the possible reasons and connections between personality and illnesses. Now let us look at conscientiousness as a trait, which, in certain cases, as we discussed earlier in this lecture, is very important in the context of health. So, a lot of research has found a very strong or consistent relationship between conscientiousness and health.

Conscientious individuals are associated with both longer and higher-quality life outcomes. This connection is not due to a direct biological link but rather to the health-promoting behaviors of conscientious individuals. So conscientious individuals have a lot of positive

impact on health because of the behavior patterns they show. Research has consistently shown that conscientious people live longer and have better health outcomes. This is a general finding.

One of the meta-analyses, which was done on a large sample of more than 76,000 participants, found that conscientiousness was the only personality trait that reliably predicted survival. Individuals low in conscientiousness often have poor self-control, lack persistence, and engage in behaviors detrimental to health. Conscientious individuals have a very strong sense of self-control, persistence, and very well-regulated behavior. Because of this trait, they are more likely to engage in health-promoting behaviors. They have a greater sense of consciousness in terms of what they do, and because of that, they are more likely to engage in positive behaviors, live longer, and have better health. People high in conscientiousness tend to avoid unhealthy behaviors and maintain healthy lifestyles. For instance, an internet survey with 460,000 respondents revealed that those lower in conscientiousness report poorer health, higher body mass index, and greater substance abuse.

Some research also shows that conscientiousness is linked to employment. Conscientious individuals are more likely to remain employed and avoid job loss, which contributes positively to health. Because unemployment is very stressful, it can lead to deteriorating health and harm health as well. Unemployment, which is conversely linked to health issues such as poor nutrition, lack of healthcare, and stress, can contribute to many physical diseases. Conscientiousness therefore indirectly benefits health through association with stable employment and so on. Such people are more likely to get employed and remain in that employment because of their organized behavior, conscious behavior, and so on.

Another personality trait that has been linked to cardiovascular diseases, or heart diseases, is Type A and Type B personality. Now, these two types were described by two people named Friedman and Rosenman in 1974. They were heart surgeons who suggested that people with certain personality traits are more predisposed to suffer from stress than others; consequently, they are more likely to have coronary heart disease. They observed in their patients certain patterns—that are more likely to experience stress in their lives, and as a result, such patients are more likely to experience heart diseases.

They have identified two types of traits in that context. One is type A and another is type B people. They developed a questionnaire to identify who is type A and who is type B. For that, they ask questions like do you feel guilty if you use spare time to relax? Do you need

to win to enjoy the games and sports? Do you generally move, walk, and eat rapidly? Do you often try to do more than one thing at a time? These are some of the questions they asked and based on that yes or no to these questions, you are more likely to be certain type.

Type A individuals are the type of individuals that show certain characteristics that are excessive competitiveness and achievement orientation leading to extreme self-criticism as they always want to succeed. They are more self-critical even with little failure here and there. They also have an exaggerated sense of time urgency leading to a constant struggle against time and a compulsion to try to do more than one thing at a time. They are multitasking, doing more than one thing at a time They always have a time urgency situation and constantly struggle against the clock

Third, these people have anger and hostility issues that may or may not be openly expressed. They have a lot of anger and hostility within themselves. Some of them may express it a lot, but some may suppress it, i.e. it is there inside themselves.

So, these are the three important characteristics of a Type A individual. On the other hand, Type B individuals are just the opposite of Type A. That means they are very easygoing, not very competitive, and not very achievement-oriented. They are less demanding of themselves and others, with no exaggerated sense of time urgency. They are more of a relaxed individual. These are two extreme types of people.

Some people may be extreme Type A or extreme Type B. Some people may be somewhere in between also. They identified these two types of individuals. Research often mentions these Type A and Type B personalities. These are not extreme, typical categories i.e., either you are Type A or Type B—not necessarily. This is more of a dimensional characteristic. More people may show sudden existence on a spectrum of extremes. You can have all kinds of behaviors ranging from one extreme to another. Type A and B follow these patterns on a spectrum where many people may not fit exactly into type A or type B, but some people may be exactly type A or type B. Some people may be somewhere in between. So, Friedman and Rosenman conducted a longitudinal study for eight and a half years with a sample of 3,524 men aged 39 to 59 years.

These were mostly their patients so they did a very long-term study and tried to observe the characteristics of these people and what kind of diseases they reported in terms of heart diseases and so on. They were observing this set of people for more than eight years and looking at what was happening in their health status. Among these people, they found some people were type A, and some people were type B.

They found after this longitudinal study of 8 years that type A individuals were twice as likely to develop coronary heart disease than type B individuals due to the higher physiological reactivity that type A people show. So that is what they found mainly because type A individuals, due to their lifestyle and their traits, are more likely to experience stress in their life, and this stress contributes to heart diseases because it directly influences their physiology and causes problems in the heart. However later research shows that not everything about type A is linked to heart disease, but particularly anger and hostility, the third element of type A, is more specifically linked to heart diseases. The other two aspects of competitiveness and achievement orientation and time urgency were not directly linked to heart diseases, but anger and hostility, later research shows, were more important or more contributing to heart diseases.

So researchers defined the trait of hostility as a tendency to react disagreeably to disappointments, frustrations, and inconveniences. People show a lot of frustration and a little bit of disagreement, and they feel a lot of disappointment, frustration, and inconvenience. That is something that is reflected in the trait of hostility or aggression. People high in hostility are not necessarily always violent or aggressive, assertive or very demanding people; that is not necessarily the case. People high in hostility in this context means they are likely to become easily irritated by small frustrations, such as a vending machine taking their money without dispensing a drink, misplacing car keys, and so on. That is the trait they found later research shows is more strongly related to heart diseases. Several studies have established that hostility is a very strong predictor of cardiovascular diseases. Many meta-analyses of studies show, for example, in 2009, that this component is a much stronger predictor of cardiovascular disease. Even some psychologists, like Dabrowski and Costa, found that even a questionnaire measure of Type A, particularly the hostility component of Type A, predicts heart diseases better than the other measures of Type A personality. Recent studies also linked hostility to systemic inflammation, indicated by elevated white blood cell counts. Chronic inflammation is known to increase the risk of coronary diseases, leading physicians to recommend other kinds of treatments.

So recent research also shows this trait of hostility in Type A is more particularly linked to heart diseases. Other aspects may not be very strong predictors. The positive aspect of this research is that it is not everything. Type A itself is not a bad thing. Not everything about Type A is bad for heart disease.

Hostility is the primary harmful component, and it is possible that if Type A people reduce this hostility component, then it may not contribute to heart diseases. A healthy Type A

could be striving for success and achievement, which is acceptable, but it should not be done with hostility and aggression. This hostility and aggression are something that should be avoided. Being in a hurry and trying to accomplish a lot is fine, but frustration and anger should be avoided when faced with challenges. Enjoying competition is also healthy, provided it remains friendly and non-hostile.

That sense of hostility is the main culprit, according to a lot of recent research. Some research also suggests that certain therapeutic practices can be done to reduce this aspect, particularly for people who are Type A individuals, such as practicing more patience and so on. Certain management, such as hostility management therapies, are also available and can be taken by people. Not everything about Type A is bad, but this hostility component has to be looked at and particularly reduced to improve cardiovascular health.

So, how are these arteries damaged by hostile types of behavior? How is hostility linked to heart disease? Now, Type A behavior, particularly the hostility aspect of it, produces a toxic effect on the heart and arteries by triggering the fight-or-flight response. So, the heartbeat increases, and certain stress hormones get released in the blood, and so on. This response includes blood pressure increases, constriction of the arteries, elevated heart rate, and greater volume of blood pumped in each heartbeat. As a result, more blood is forced through smaller arteries causing wear and tear on the inner lining of the arteries leading to microcosmic tear and abrasions. These abrasions become sites where cholesterol and fat can accumulate. Too much wear and tear happens when there is too much of a fight-and-flight response in the system because of this particular trait which can lead to the release of certain stress hormones.

Accumulation leads to the accumulation of these fatty substances in the arteries blocks the arteries and leads to heart diseases. Additionally, the stress hormones released during fight and flight response can further damage arteries. One thing is too much erratic beating of the heart because of stress could cause problems in the heart and on the other hand the release of stress hormones particularly when it is released for a very long time leads to the release of certain hormones like cortisol. It has been found that cortisol as a hormone promotes the deposit of fatty substances or cholesterols in the arteries of the heart which blocks the heart and that is what heart disease is all about. So, this buildup promotes the buildup of fatty deposits.

This buildup of narrow arteries condition is called atherosclerosis which is the main reason for heart disease. When the arteries supplying blood to the heart muscles become blocked,

the blood flow is restricted due to it. This causes heart problems, heart attacks, and so on. This trait could contribute to direct physiological mechanisms. This is just a diagram showing how this plaque forms in a healthy artery. Here, certain deposits are forming, which block the pathway.

Blood does not flow freely to the heart. When it is blocked, blood pressure also increases. Since it cannot move smoothly, the blood must exert more pressure to flow through the arteries. This further increases blood pressure. This could be the possible mechanism through which certain traits, like Type A traits—particularly hostility—contribute to heart disease.

With this, I will stop here. In the next class, we will discuss how personality is linked to mental health and so on. With this, I conclude here. Thank you.