ANXIETY DISORDERS AS BROADCAST SCRIPT
JANUARY 3, 1991

#3

FADE UP ON LOGOS

NARRATION: Funding for this program was provided by The Annenberg/CPB Project.	The Annenberg/CPB Project
NARRATION: Sometimes, as we face life, we can master our experiences, sometimes we can't.	Mauve; fade up on music and pictures for open 1. boy looking into camera on stomach 2. children in schoolroom 3. girl at blackboard 4. boy alone with group off to side - zoom in on him 5. two people walking under catwalk 6. band 7. older black couple hugging 8. man and woman at table with chins in hands 9. man sitting on bed with face in hand 10. woman in mourning with hankie over eyes
MAIN TITLE	The World of ABNORMAL PSYCHOLOGY (over montage of photos)
SHOW TITLE	THE ANXIETY DISORDERS

FADE DOWN

FADE UP

DONNA: Some people have high blood pressure, other people have ulcers, I just happen to be one person, I don't know why, that has anxiety disorder. When a huge amount of stress or pressure is placed upon me, it comes out in anxiety.

MARY: I avoid being home alone. I avoid shopping alone. I avoid anything really alone. I don't do anything by myself.

ROGER: Just watching a television show where there's a tall- there's a camera angle from the top of the building and it's- and it's heights, just sitting in my own living room, my hands would spring to sweat and my heart would pound and race and I'd probably get up and walk out of the room. It just brought back so much of that- of that terror and it makes it real easy to want to stay away from a situation like that when that gets reinforced over and over.

LAVERNE: Every day I'd go through two or three, you know, periods of anxiety. And that's the thing that scares you because you don't know when it's going to come on. And you don't know how long it's going to last. And you just don't know what it is. You don't go to the hospital right away because you- you think, 'Maybe it'll go away. Maybe it's just something that I'm going through right now.' But my breaking point was when I reacted physically to it and I just started crying.

NARRATOR: Anxiety: There probably isn't a person around who hasn't felt it: fear, apprehension, often the expectation of an unspecified danger.

B-roll: students registering

Cut to CU student
Cut to CU feet

LEWIS-HALL: Anxiety is a very normal, natural response that has counterparts in the animal kingdom as well. So animals have anxiety about things and so do humans. So we use this every day, to decide whether or not things are truly dangerous to us or whether or not they're not, and if they are dangerous to us, then our body continues the alarm until we know what to do about it, until we've had time to either run or stand and fight or outthink our foes or whatever.

NARRATOR: Even though it's perfectly normal to feel some degree of anxiety in our daily lives, for many people, anxiety reaches extreme proportions, robbing them of the smallest pleasures.

Cut to drawing: CU woman at work

Cut to drawing: MS man and checkbook

Cut to drawing: MS student in classroom

LEWIS-HALL: If we understand that anxiety is a normal, natural response, then we can also understand that it can go awry, just as any of our other normal, natural body responses can go.

So what helps us differentiate normal anxiety from abnormal anxiety or anxiety disorders is its intensity, whether or not the intensity of the anxiety that you feel really matches the circumstance, one. If the length of the anxiety is inappropriate to whatever is causing that anxiety, and three, is whether or not we're able to adequately respond to make a decision about what to do in that our body has alarmed us to some danger.

NARRATOR: The anxiety disorders are the most common of the mental disorders with the exception of substance abuse. Anxiety disorders affect one in every six Americans at some point in their lives. That's over 32 million people.

Cut to Map; Roll: Panic Disorder, Agoraphobia, Other Phobic Disorders, Generalized Anxiety Disorder, Obsessive-compulsive Disorder, Post-Traumatic Stress Disorder, Dissociative Disorders, Somatoform Disorders; ADD: 32 Million People

In this program, we'll hear from patients who suffer from various types of anxiety disorders and we'll explore two of the most common in depth: Panic with Agoraphobia and Generalized Anxiety Disorder.

Dissolve to Graphic B-Roll

Freeze Frame; ADD: Panic with agoraphobia, Generalized Anxiety Disorder

We'll learn what it feels like to have these disorders. We'll learn about the biological, psychological and environmental factors that may contribute to them, and we'll see what treatments seem to work.

Dissolve to circle with BIOLOGY; add circle with PSYCHOLOGY; add circle with ENVIRONMENT

TITLE CARD: PANIC DISORDER AND AGORAPHOBIA

NARRATOR: Panic disorder and agoraphobia are two separate anxiety disorders that often occur together.

Over title card

First, a look at panic disorder.

Dissolve to WS Shulman

Dennis Shulman is a psychoanalyst and professor at Fordham University where he teaches abnormal psychology. He talks about a patient who has panic disorder.

SHULMAN: Paula is a patient who came to me when she was 29 years old. She was referred by a physician and she went to a physician because she was complaining of cardiac problems. She would be walking in the street...

...or going in an elevator, going in an elevator, or at work or at home and she would find all of a sudden that her heart was racing.

Dissolve to drawing: Paula on elevator

She went to the- a physician who worked her up for cardiac problems and found that the appropriate diagnosis in her case was panic disorder.

Cut to drawing: CU Paula Zoom out to WS with doctor

Paula would experience approximately 8 to 10 panic attacks each week for the last five or six weeks, by the time she was referred to me. Now these attacks would be very discrete episodes. They would have a beginning and they would have an end. From Paula's point of view, they felt like they were very, very, long--hours.

NARRATOR: In fact, Paula's panic attacks lasted for minutes not hours. But as panic researcher Dr. Dianne Chambless tells us, those minutes can be terrifying.

Cut to drawing: CU Paula on street

Dissolve to Chambless

CHAMBLESS: Imagine that, you know, you're crossing the street and you look up and there's a big truck getting ready to flatten you. Okay, so think about what your body does at that time, about how your heart races and maybe it feels like your legs are just going to give way underneath you and your mouth goes dry and you tremble and so forth.

I mean, these are all things that people feel when they have a panic attack. So it's a, a very high state of anxiety and the only way it differs from just ordinary ongoing anxiety is that it happens so fast so that it has a very rapid onset and it hits max really quickly.

So that people often feel very out of control because they flipped into this high state of anxiety so quickly. And that's really the, the hallmark of what it's like to be in panic, is to feel out of control because you have this rapid surge of anxiety that's somewhat unpredictable.

SHULMAN: Another aspect of Paula's situation was that she was preoccupied with the next panic attack.

It wasn't just that she was experiencing a panic attack. It was that she was anticipating the next one.

Cut to drawing: CU Paula Zoom out to WS Paula on street

Sometimes we talk about this as fear of fear, as being a very important aspect of panic disorder.

NARRATOR: Sometimes, the fear of having panic attacks leads to a second but related disorder called agoraphobia. It means literally, "fear of the marketplace," but in practice, it means avoiding activities or situations that may leave people feeling out of control and vulnerable to having panic attacks.

B-Roll: Agoraphobics getting off the bus
Freeze Frame

ADD: Agoraphobic

ADD: ... avoiding situations that leave people feeling out of control and vulnerable to panic attacks.

MARY: Driving. I just totally avoid it. I'm afraid of like being out on the highway and having a panic attack, you know, while I'm driving. Like what am I going to do? I'm afraid of wrecking or, you know, stopping the car in the middle of the road, you know. Or not being able to get back home.

Even like walking, like to walk, I could walk so far and then, as long as I could see where I'm coming from. Once it gets out of my sight, I'm like panicking. It's like I turn around and come back.

CHAMBLESS: In terms of who comes in for treatment, the great majority of the time, people who have panic disorder have developed phobic avoidance on top of that. Now it may be relatively mild or it may be severe so we go from people who just avoid a few things and not even all the time, to people who are housebound or even roombound or bedbound, you know, at its most extreme case.

MARSHA: But what if you were thinking about going alone? What would happen, what would it feel like thinking about it, just even right now?

MARY: Terrifying.

MARSHA: Why is that?

MARY: Because of panic attacks.

MARSHA: And have you had those panic attacks? Tell me what that's like.

MARY: It's just, I feel like I'm going to faint. My heart beats very fast. I get dizzy. I get all sweaty. My legs wobble. And I get really disoriented.

MARSHA: That sounds scary.

MARY: It is.

MARSHA: How often do you have that?

MARY: Whenever I'm alone.

ROGER: What I had done was-was build a coping world around myself where I was unable to travel certain areas. I just- I just avoided certain kinds of travel. It was affecting my career.

ROGER'S WIFE: In our case, on a day to day basis, it's not really much of a difficulty because his phobias are- are more isolated and so it doesn't have a daily impact.

But some of his greatest phobias are bridges and long distance travel and- and things like that so that we really can't plan trips together, especially trips that might include bridges or something like that.

So we, you know, are limited by- by what kind of traveling we can do. Or we can't go to cultural events because it's scary; for him to be up high on balconies and things like this and so if I want him to go with me, it- it creates you know, quite a conflict because he doesn't want, you know, he just can't do that.

ROGER: There were serious setbacks for me. I had to fabricate stories and come up with, with- with all kinds of clever schemes to get out of doing things and it affected career choices and got to be critical.

NARRATOR: The ever-present fear in agoraphobia is °Will I have a panic attack and if I do, can I handle it? Patrick describes his "worst case scenario" for a panic attack.

B-Roll: people in mall

PATRICK: Having an attack, people running around and gathering around and making a real big deal out of it. Having to call for medical help, just things like that. Making a real big thing out of it, calling all the attention toward me because of that.

NARRATOR: For many people with agorapahobia, the only place where they feel safe is at home. Or if they have to go out, they must bring a companion along.

B-Roll: Patrick in bus

B-Roll: inside bus

GOLDSTEIN: I think that not wanting to leave the house has to do with what...

...one investigator has called safety signals. What that means is the person who's agoraphobic is frightened to death of the return of the panic and the thing that determines their level of comfort is the degree to which they feel, in a situation- they're in a situation in which they're safe. That is somebody will take care of them should they go out of control.

So home is often the safe base because there is protection around a safe person for most people.

It's extraordinarily important, more than a place, so that the- that person's presence becomes that safety signal.

And when, the further away they get from that, the more they feel blocked from getting back to that safe place and person, the more anxious they are. So home is not so much the issue as- as what will happen if I go out of control? How safe is this place when that happens?

NARRATOR: Doctors Alan Goldstein and Linda Welsh run a 2-week intensive program in Pennsylvania to help people with agoraphobia and panic get over their fears.

B-roll: Intensive group therapy

Condensed treatment programs like this one have been shown to be effective in dealing with patient attrition, setbacks and loss of motivation--all problems common in longterm treatment. They provide daily opportunities to practice coping techniques to confront anxiety--in a small and supportive atmosphere.

ROGER: Very scary. The trembling. Sweaty.

GOLDSTEIN: Did you, just now?

ROGER: Yeah. Yeah. Well.

GOLDSTEIN: ...push...

ROGER: I don't know that I- that it really scared me but I really- I- all the symptoms were there.

GOLDSTEIN: There are several things happening when we do this kind of intensive work. Over Roger

One is that there's tremendous support from the other people in the group. Secondly, we've in a sense taken them out of their environment for awhile so that we have an opportunity to really build in new habits without a whole lot of interference from the daily triggers in life.

And to strengthen those habits so that when they go back, they're able to behave in new ways, vis a vis their anxiety, place and other people in their lives. And we're working at all of that, all of those levels and indeed that's- that does happen.

NARRATOR: The program uses such cognitive/ behavioral techniques as relaxation training and extensive "travel work" to help clients learn to face head-on their fear of losing control and having a panic attack.

B-Roll: Mary driving

For instance, clients are instructed to hyperventilate to simulate the physiological feeling of a panic attack. When no panic attack occurs, they see they really are in control.

B-Roll: Group hyperventilating

While some people with agoraphobia are treated pharmacologically, it's a goal of this program to free its clients from the use of medication. Dr. Goldstein explains.

B-Roll: Group at mall

GOLDSTEIN: The role of medication is something to get off of in this program. It's our view that people don't really feel well...

...until they have the sense that they are in control without crutches. And medication is just that. It's a symptom dampener but it doesn't quote--cure anything.

I would say 60 to 70 percent of the people who come in here are on medications and have been tried on a number of medications.

B-Roll: Group members and Goldstein on elevator

Many of them are on a number of medications all at once so they may be taking a tranquillizer and an anti-depressant and maybe a beta blocker, you know, that's something to slow the heart.

On the other hand, I think medication has it's place. There are people who are so extraordinarily distressed or depressed that they simply can't function and that's the role of medication, to get them through that temporary dysfunctional period.

NARRATOR: Clients are also taught how diet contributes to the disorder. In particular, caffeine, which cause reactions in the body that may feel like the symptoms of anxiety.

B-Roll: group in eating area

GOLDSTEIN: So they start to get confused about these symptoms they're having.

...and they feel tired all the time, and they have many shifts in their energy level during the day. So it's really important...

...for people who have these problems to eat well.

Over B-Roll: group eating

NARRATOR: Caffeine acts in the brain as a stimulant that produces transient anxiety-like sensations in these already aroused individuals. But the role of the brain in the anxiety disorders is still not well understood.

Graphics: silouette of head
Add: brain in head
Lose silouette; brain tuns

LEWIS-HALL: What anxiety disorders seem to be are a very complex array of imbalances or complications in the areas of the brain that control the various aspects of this alarm system. So we're not exactly sure of what the biology is on a one-on-one basis.

But we know in general that it includes such neurotransmitters as norepinephrine, as serotonin and there are special number of receptors called benzodiazepine receptors that act along with what's called GABA, gamma-aminobutyric acid, which is inhibitory neurotransmitter in the brain. So as far as we know, those groups of neurotransmitters somehow interact with one another and either cause or inhibit anxiety.

TITLE CARD: AGORAPHOBIA
CLINIC: WEEK ONE

NARRATOR: The feeling of anxiety associated with agoraphobia and panic attacks can be seen in the group therapy process.

B-Roll: Group

Here, a couple of days into Week One, participants are still getting to know one another and expressing their fears about travel to the city.

MARY: It shook me up that we're all going with one person, I don't know why.

ROGER: I thought that too. I had the same reaction.

MARY: It really shook me up.

ROGER: I didn't want to split up right now. I think we all need to stay. That was my reaction right away.

MARY: Please don't go.

VOICE: I was real glad when I got off the expressway and into the bus.

NARRATOR: Mary is the daughter of an agoraphobic mother--she is married with two small children of her own.

B-Roll: Welsh & Mary by esclator

Mary's travel assignment -- riding an escalator at the mall--is a behaviorial technique that teaches her a new way to react to a situation that she fears.

Here, Dr. Welsh works with Mary to get at the anxiety she feels--her deep distrust that she's not competent to handle the world on her own.

B-Roll: Group

WELSH: Could you tell us about the feelings you had going up and down it and how you made it good.

Over Mary

MARY: It was good. It wasn't frightening to me or anything.

WELSH: How did that progress from the first time, do you know? What did you think?

Over Mary

MARY: Just my breathing and I was trying to concentrate on the things that were going on around me. Watching the other people go up and down on them. And watching your face.

B-Roll: Mary on escalator

WELSH: And what happens then?

MARY: It was just nice knowing that you were down there.

I don't trust people at all. I don't, even when Jonathan left and you told him that you'd meet him. I mean I even felt for Jonathan because I don't trust people you know. I'd be afraid to come back and you won't be there. I mean I know you'd be there, but I'd be afraid that I wouldn't see you. You know.

It's just I don't trust people. I have a very hard time trusting people — Over Goldstein

Even with my husband, we'd gone to the Sear's store and I was going to the ladies' room and I told him to stay right there at the cash register. I mean it's no big deal, he only went in the next aisle. And I wasn't nervous, but it made me so mad. I mean I was yelling at him like, 'Why didn't you stay there? I told you to stay there!' You know what I mean? And I won't even ask him anymore. I told him, 'I don't trust you, I'm not going to ask you anymore.'

FADE OUT

FADE UP ON:

TITLE CARD: GENERALIZED ANXIETY DISORDER

DONNA: The first time I experienced it, I was in my late teens. — Over title card

...And it was a fleeting moment. It came and it left. But I knew what I felt, I didn't like. And then it disappeared for several months and all of a sudden it came back. When it came back, it was constant. It wasn't something that would be just coming and going.

NARRATOR: Unlike panic attacks, which are discrete episodes, Generalized Anxiety Disorder is chronic, diffuse, excessive worry --what used to be called "free-floating anxiety."

B-Roll: LaVerne walking

LAVERNE: I knew that I was not me. I knew that I was not normal, that- that was not the way I'm supposed to be feeling. I knew that.

And I knew that something had to be done because I would even have dreams of men with white sheets on knocking at my door and I'd open the door and when I'd see them, I would push the door and try to keep them out, you know. I was afraid--you know they were saying 'We're coming to get you.' I had all kind of, you know nightmares, and sleepless nights.

DONNA: When I would be waking up in the mornings with a fast heartbeat and all the other feelings that were associated with the symptoms. It escalated to the point that I felt so crazy anyway, that just with these symptoms, it didn't make sense, so then I had to create something that I would fear almost to add to this problem.

I don't know if I'm making sense to you or not but it was like these symptoms were so- so ridiculous so then, I, all of a sudden focused on finding something that would scare me.

So I focused on knives. Knives became a nightmare to me. I would think about knives, I would- I would worry that I would hurt somebody with knives. I would worry that I would lose control and kill someone and it would always be somebody that I loved.

DONNELL: What really nails down the definition of a generalized anxiety disorder is the worry, excessive worry. Panic disorder people worry about having a panic attack. Generalized anxiety disorder, in order to meet criteria for it, they have to worry about other things than their anxiety.

...and in Donna's case she worries about family, finances, and she has other worries and concerns too. But that's what really captures the disorder is that they have to have two major themes of worry outside of worrying about their anxiety.

B-Roll: Donna in therapy

DONNA: And then also there are financial difficulties right now. Seems like everything's coming at one time.

DONNELL: Are you worrying as much about the finances as you are about the family?

DONNA: Probably about equal. It's hard to really say for sure at this moment. If you'd ask me that probably ten minutes from now I'd say, oh, you know, the financial is terrible, but twenty minutes from now I'd say well, it's the family, you know. I'm having trouble meeting their expectations.

NARRATOR: Often the person with chronic anxiety has difficulty falling asleep and suffers from lots of aches and pains. Many drink excessively and the risk of dependence on tranquilizers and sleeping pills is very high.

Cut to drawing: CU man holding clock; pan to CU face

Cut to drawing: MS man in bar; Cut to drawing: CU pills in woman's hands

About four percent of Americans suffer from Generalized Anxiety Disorder, with women outnumbering men 2 to 1.

Cut to drawing: group therapy

Cut to drawing: CU two women in group therapy

Laverne is an administrative assistant for the U.S. Army in Washington D.C. Dr. Lewis-Hall has been treating her Generalized Anxiety Disorder or the past four years.

B-Roll: LaVerne walking out of building

Cut to CU Lewis-Hall

LEWIS-HALL: Her symptoms originally, back originally before she came to me included such things as the muscle tension, the chronic worry and pre-occupation with difficult issues.

She would have episodes that were worse than her base line where she would have some increase in heart rate, palpitations, some shortness of breath, and more than anything else was the feeling that doom was right around the corner. That- that piece that she couldn't quite get rid of, that something was going to happen; she wasn't quite sure what.

NARRATOR: After living with chronic anxiety for many years, Laverne finally realized she needed to get help.

B-Roll: LaVerne walking

LAVERNE: One day I was at work and my girlfriend and I went down to the cafeteria to get lunch.

...And as we were walking I got very dizzy; it felt like I was just going to pass out. And I got real nervous and frightened. I told her I didn't want to go in there, I was just afraid.

There were too many people in there. And I said 'Just wait right here and I'll be alright for a minute.' And after it passed for about two minutes, but it seems like it's 20 minutes or longer that you're going through this and anyway we went and got our lunch.

But when I came back upstairs, we went- she went back to her office and I put my lunch on my desk. And as I put my lunch on my desk and I got ready to eat, I just burst out crying, and I threw my plate down and I called her up and I said, 'Come take me to the hospital right now. I just can't take it any more.'

NARRATOR: Many patients with chronic anxiety do go to the hospital or their medical doctor. But most often, it's not a psychiatrist or psychologist they end up seeing.

Over LaVerne

Cut to CU Lewis-Hall

LEWIS-HALL: Usually it's the primary care physician or the emergency room physician that'll see anxiety disorders and especially Generalized Anxiety Disorders.

These are people who'll come in, because most of the illnesses, most of the symptoms of this illness are symptoms of the body. They'll come in with dizziness; we work them up for dizziness. They'll come in for palpitations; we work them up for that.

So the person that they see first and foremost is their general practitioner or their family practitioner or the person in the emergency room.

NARRATOR: St. Paul, Minnesota general practitioner Teresa Quinn sees many patients with Generalized Anxiety Disorder who come in complaining of physical symptoms.

Over Quinn

QUINN: I saw a person who was very focused on neck pain. And that was her primary complaint was neck pain and she did have some reasons for having the neck pain but every time I saw her, the time would go by very quickly. You know, she would have a lot of things to talk about and, you know, would speak in a pressured manner and would talk about other symptoms eventually too that were bothering her too. And eventually it became clear to me that- that she had an anxiety disorder and it turned out to be GAD.

DONNA: It was very disappointing because for 28 years, I have run from one doctor to another and it also hurt me when I had physical ailments. There were times when I would go to a doctor with physical problems and they'd look at me and they'd say, Donna, you sure it isn't just in your head?

QUINN: I think the most important thing for the physician to be aware of is that anxiety disorders are very common and not to miss those disorders. I think in the past, we were almost trained that if we ruled out a physical disease, our job was done and I think it's very important that we be aware of what the symptoms are of anxiety disorders so that we can either treat that patient or refer them and also so that we can educate the patient.

TITLE CARD: ANXIETY
DISORDERS: CAUSAL FACTORS

NARRATOR: Even though people with Generalized Anxiety Disorder and Panic Disorder feel anxious about different things and react in different ways, experts believe that many of the same factors are operating in these and other anxiety disorders. The question now is--what causes them? Is it, for instance, something that happens in childhood?

Dissolve to drawing: sad woman on bench
Cut to black man on bench

Cut to oriental man on bench
Cut to family drawing: mother, daughter, son

Cut to CU son

PATRICK'S DAD: You go back and search through the history of from the time he was a child and see, ask yourself if, at some point in time you did something that might have caused this.

This is not something you do in a day; it's something that you do over a period of time. And you find yourself doing that if you,

Over picture of Patrick as a child

Over Patricks's family picture

...if something you did might have caused this and what- what could have caused it.

NARRATOR: There's no way to measure exactly how much influence parents' actions have on this disorder. But in the case of agoraphobia and panic, most psychologists believe the role of childhood experience is significant.

Dissolve to drawing: family with parents arguing

Cut to CU boy with hands over ears

GOLDSTEIN: I think childhood experiences are extraordinarily important. We see people who tell us over and over and over again that from very early in life the kinds of experiences they've had have shaped them. And I'm talking about the kind of environment one needs to feel safe in or not. For those who are going to be agoraphobic, it's not.

ROGER: I was taught a- a scary view of the world. The world was not a safe place. It was my upbringing; my mother was overprotective in that respect and I learned to doubt whether I could handle things. It was just part of my childhood training. And it did. To make things worse, my- my father was- tended to be critical of me and that piled on top of it- keeping my self-esteem low and my confidence ability to break out of that cycle, reduced that ability.

NARRATOR: Dr. Lewis-Hall cautions that the jury is still out on the issue of childhood influence.

B-Roll: Lewis-Hall and colleague walking down hall

LEWIS-HALL: We're taking adult patients who have anxiety disorders,

...and looking back at their childhood and saying 'Well, gee what's there that may account for this.' The scientific danger with doing that is that we have a select population. We have a population that we know has anxiety disorders.

What if we walk down the street to people who didn't have anxiety disorders and ask them if they had similar or the same childhood experiences. We're just not sure scientifically whether or not the answer the answer that we got would be that there are children who had the same experiences in childhood that did not develop anxiety disorders.

NARRATOR: In the end, most experts feel that any single factor -- like childhood experience -- won't explain anxiety disorders.

Cut to drawing: CU mother and father arguing

Cut to WS drawing

SHULMAN: So my model, and the model of most people involved in abnormal psychology today, has to do with the multiplicity of factors. It has to do with constitutional vulnerability which is to say the kind of biological, physiological, constitutional elements that the person is born with.

The most important of these, I would say, for anxiety disorders is that people are born with different tolerance levels for anxiety. Some babies tolerate anxiety very, very well. Some babies do not.

And that it seems very clear that these kinds of differences are constitutional. That is one factor. But that alone cannot cause an adult anxiety disorder.

That in combination with, perhaps, issues that have to do with childhood history, early and later childhood history, issues that have to do with personality development, what some researchers refer to as adaptive style, the way that each one of us adapts to anxiety, and also issues that have to do with current life stress.

NARRATOR: Doctor Shulman illustrates this multiplicity of factors with case histories of three different anxiety-based disorders.

Over Shulman

CHYRON: PAULA: PANIC DISORDER

Dissolve to drawing: CU Paula on street

NARRATOR: When Dr. Shulman took Paula on as a patient, she was about to marry a man out of her faith and was converting to his religion. Her parents were very closed about such issues.

Zoom out to WS

SHULMAN: Paula guessed that this would not sit well with them; it didn't sit well with them.

So that would be what we call life stress, the stressor that was going on at the present time that figures into the ultimate development of the panic disorder.

At age nine, she remembers that there were many arguments at the family dinner.	Cut to drawing: WS Paula watching dad yell at son at dinner table
Most of them centered about her brother who was three years younger than she and was constantly getting into trouble in school.	Cut to CU brother
And he was seen as the bad son. She was always the good girl.	Cut to CU Paula as girl
And she remembers begin so upset about what was going on at the dinner table that she went upstairs to the bathroom and put a towel in her mouth and screamed.	Dissolve to CU Paula with towel in mouth
And she remembers doing this because she knew that she couldn't scream out loud. That she wasn't allowed to scream,	Zoom out to WS Paula in bathroom

...but she needed to scream.

This later became very important as a metaphor for what the panic disorder- the function of the panic disorder, how it was serving to keep her from being able to scream at her parents, at the people in her life, that she needed to scream at. And her need to be a good girl.

CHYRON: PHIL: Ossessive-Compulsive Disorder

Dissolve to drawing: CU Phil checking gas

NARRATOR: Phil is a 57-year-old man with Obsessive Compulsive Disorder. Before going to work each day, Phil had to check and re-check the gas 28 times to make sure it was really off.

Zoom out to WS

He knew how irrational this was, but it made him terribly anxious NOT to do this checking. Phil also came in to Dr. Shulman with a current life stressor--complaints of worsening marital problems.

Cut to drawing: Phil and wife

SHULMAN: The most traumatic experience in his life was when he was about five years old.

Dissolve to drawing: Phil with baseball mit and dad

His father and he were constantly getting into difficulties even at that young age. His father was constantly critical. He experienced his father as constantly critical. He was often arguing and argumentative with the father.

Cut to CU father

Cut to CU Phil

Not doing what the father wanted him to do.

And there was a particularly angry period in his father's life and in the son's life around this age of five and his father died in a fire in the factory that he worked in.

NARRATOR: As an adult, Phil was still trying to deal with his angry childhood feelings. Afraid that his childhood anger had actually killed his father, he was also afraid that expressing anger at his wife might kill her too.

Cut to drawing: CU Phil

Pan right to CU wife

Professor Shulman believes that Phil's gas checking was a solution to an unconscious conflict: on the one hand it expressed his aggressive feelings, and on the other hand, it stifled them.

Cut to drawing: WS Phil checking gas

Cut to CU Phil

CHYRON: MARIA: Hypochondriasis

Cut to drawing: CU Maria in bed

NARRATOR: Maria is a 27-year-old woman with hypochondriasis, intense anxiety that she is ill, even that she is dying. Every physical symptom sends her running to her physician in fear. One night she has a terrible stomach ache.

Zoom out to WS

Cut to CU Maria's stomach

SHULMAN: What I learned was that she was asleep and at 2 in the morning her husband came home.

Pan up to CU Maria

And in the middle of the night they decided that they would order pizza.

And she ate the pizza at 2 in the morning; they went back to sleep at 4 in the morning and woke up with a horrible stomach ache.

NARRATOR: Typical of people with hypochondriasis, Maria believed it was stomach cancer, not the pizza that caused her pain.

Over Shulman

In examining the causal factors in Maria's anxiety disorder, Dr. Shulman looked both at her present stressor--her recent marriage--and at her childhood.

SHULMAN: She was raised in a very traditional Italian home, was the favored and the first child, and her father, who was seen as a very powerful figure in the family; the mother was seen as a rel- very passive and very weak. The father, who was seen as an extremely powerful figure was someone who pampered her and catered her.

This all changed at adolescence when the father became very withdrawn and very critical of his daughter, particularly of her sexuality, her developing sexuality. And what Maria did was a massive rebellion.

Dissolve to drawing: CU Maria as teen

Pan down to show CU of hand on doorknob

She became very sexually active; she became involved as rock groupie during the late 60's, doing very fr- extremely frightening activities, sneaking out of the house constantly,

Cut to WS Maria as teen

...really opposing the father's iron hand.

NARRATOR: When Maria decided to get married, her rebellion turned inward. She became hypochondriacal, pre-occupied with her health, and fears of dying.

Dissolve to drawing: CU Maria's stomach; pan up to CU Maria

Dr. Shulman suggests that Maria's dramatic change relates to her upcoming marriage.

Cut to Shulman

SHULMAN: What Maria's disorder mostly had to do with was an attempt to disable herself to keep her connected with a powerful man just like the father was before adolescence and after, while at the same time, be-expressing her anger indirectly by withdrawing, by being vulnerable, by being too fragile to be the partner that he was expecting in the marriage.

NARRATOR: It's not always clear why a particular patient develops a particular symptom pattern. Professor Shulman sums up his point of view that there are four contributing factors: constitutional vulnerability, childhood history, personality development, and life stress.

Cut to drawing: CU Paula in elevator
Zoom in to XCU

ADD: Contributing Factors
ADD: constitutional vulnerability, childhood history, personality development, life stress

SHULMAN: In the first case, in Paula's case, it was the upcoming marriage and conversion...

Lose words

Dissolve

...and the potential disagreement of the parents.

In Maria's case, again it was marriage, in a marriage that she had significant concerns about.

In the third case, in Phil's case, it was conflict, a particularly angry conflict.

So in each case there was a current life stress. That also has to be figured out and I think it would be too parochial to think in terms of any one of these factors as being the reason for an anxiety disorder to occur. One has to consider the complex interplay of all of those forces.

NARRATOR: For Laverne, it was a series of life events, beginning with the death of her mother, that contributed to the onset of her chronic anxiety.

B-Roll: Laverne walking to bench

LAVERNE: I was close to my mother and to me, a lot of people may think this sounds funny but that was my God on earth, you know. Losing her, I didn't really have anybody else that really mattered because she always talked to me about everything and you know, I was angry, I was angry at God, I couldn't understand why He didn't take my father or somebody that I didn't love or something that wouldn't hurt me.

And I cried a lot; I cried for about two years every day. And that's when I first getting anxiety and thinking that I was going crazy.

FADE OUT

FADE UP

TITLE CARD: ANXIETY DISORDERS

TITLE CARD: TREATMENT
FLESH OUT MEDS

NARRATOR: There are basically three kinds of treatments for anxiety disorders. One, medication.

B-Roll: CU Meds in factory
Freeze Frame; ADD: Medication
Lose word

The antianxiety drugs most commonly prescribed are the benzodiazepines, with brand names like Valium, Librium and Xanax. These act to suppress the anxiety symptoms, making the person feel calmer.

ADD: Benzodiazepines

Lose word; unfreeze
Pan out to show vat of meds

Two, psychodynamically-based psychotherapy, using insight to uncover unconscious conflicts.

Cut to drawing: WS woman therapist, Asian man; ADD: Psychodynamically-based psychotherapy; Lose words

And three, cognitive-behavioral psychotherapies, which use relearning techniques: changing behavior and automatic thought processes.

Cut to Donna and therapist; Add Cognitive-behavioral psychotherapies

Next: Cognitive therapy. In this scene, Dr. Donnell uses cognitive psychotherapy to challenge Donna's automatic thought that if she doesn't immediately pay every bill in full, the consequences will be dire.

Lose words

DONNELL: You've been worrying about finances, are you worrying about something specific? Anything in particular.

DONNA: I have lots of insurances due right now. Lots of insurances. Some things that I try to help my daughter with even though she's, you know, college age. I mean, because, I'm not- I'm in a limited financial situation it makes it rough for me. And I'm a worrier. And because of that, I know I'm gonna have to pay them regardless. And I know that worrying isn't going to help. But it doesn't seem to stop me from worrying about it.

DONNELL: We've talked about this before that worrying doesn't resolve the problem. If you have financial problems, worrying does not resolve the problem.

So what we need to do is find alternative ways to deal with your financial problems. And those things that you can't control, we'll get you to let go of again. And find ways to have you let go of them. If you're on limited income what keeps you from paying part of the bill and saying you'll see the rest in September or October?

DONNA: I'm just that type of a person that I don't like to receive bills. I don't know why. I think it's probably from the past, because of never having money as a child.

DONNELL: Does it trigger your worry then when you receive the bills and you can't pay for them?

DONNA: It triggers my worry immediately. I'm thinking, 'hey I'm not going to be able to pay this.' Even if I probably would have the money, I would say, 'Oh, my God, I'm going to be walking the streets.'

DONNELL: So what will allow you to let go of it if the bill's unpaid? Are you at risk of losing your home?

DONNA: No, what will allow me to stop worrying about it?

DONNELL: Is it the end of the world if a bill only gets partially paid?

DONNA: No. I just have to learn how to let go.

NARRATOR: Now, we turn to behavioral psychotherapy. As we saw earlier in our program, the Agoraphobic Clinic uses behavioral psychotherapy to help its clients learn new behaviors for anxiety-producing situations.

B-Roll: Welsh, Roger, Mary in mall

Here, it is used to help Roger and Mary tackle their fear of heights.

WELSH: Let your eyes focus and just let them wander around. Concentrate on what you see. Pay attention so you know what they're doing down there.

ROGER: I'm sensitive to mostly heights and that tends to come across in inner-city, major city traveling where there's likely to be a tall building that I might have to go into.

B-Roll: Roger, Mary, Welsh in mall; Roger and Welsh walking in mall

Even open shopping malls with two or three stories that are open down it. That- that wass a real problem for me- is a problem for me.

WELSH: Oh, there he is. Heights, open spaces, he's really having a very hard time, a really hard time. See him holding on to the railing? He'll come down. I think he's alright, Alan; he's going to come down.

NARRATOR: Finally, we turn to classical psychodynamically-based psychotherapy. Its goal is to get at experiences and conflicts instilled in childhood and out of the patient's current awareness.

Dissolve to drawing: WS woman on couch, man therapist
Zoom in to CU woman

7-4 1582

SHULMAN: And in the psychoanalytic forms of treatment...

...the basic assumption is that what needs to be done is a person needs to make, if a person has a neurotic disorder, if a person has an anxiety disorder, that it's because they have unconscious conflicts, primarily rooted in childhood experience, but that they have this- these unconscious conflicts and if one could make the unconscious conscious, if one could bring to consciousness these unconscious conflicts, then the neurotic disorder would dissolve.

In this- in this way, psychodynamic treatment is really based on insight, the fact that what the analyst is trying to help the patient do is gain insight into his condition, gain insight into his unconscious.

When you're a child, you put something int he unconscious. It is buried and as long as it's buried, it stays intact. It stays the same way it went in when you were a child.

It's only when we unbury something, which one can do through psychoanalysis, that one can, then that thing that re-memory, that fantasy, that idea can no longer be intact.

NARRATOR: In the real world, it is almost always a combination of therapies that is appropriate. In this scene, a combination of cognitive-behavioral and psychodynamic psychotherapy is used with Mary to work on her feelings of anxiety about being asked to drive alone.

B-Roll: intensive groups

WELSH: So what would you like to say to us about this, about putting you in the situation--asking you to do it one more time?

Over B-Roll: CU of various members of the group and Goldstein

MARY: Are you people for real or are you going to make me go out and go in the car like this?

WELSH: Say that to me.

MARY: Are you going to make me go into the car alone myself and just--are you?

...I mean when I'm not ready, when I feel like I'm not ready?

GOLDSTEIN: Can you say it as a feeling? It really makes me feel when I think you're going to push me into something like that. Make a nice statement instead of a question.

Over Mary

MARY: Are you going to push me into something that I feel like I'm not ready for.

GOLDSTEIN: How's that make you feel?

Over Mary

MARY: Part of me good and part of me bad. Because I feel like I do need a push but it's just I'm afraid to get pushed. I'm afraid to get pushed but I need a push.

GOLDSTEIN: How do you feel about the person who pushes?

Over Mary

MARY: Pardon me?

GOLDSTEIN: How do you feel about the person who pushes?

Over Mary

MARY: Angry, and--

GOLDSTEIN: It makes me angry when you push me. Over Mary

MARY: But I want it.

GOLDSTEIN: So what we're asking you to do is to take a chance. Over Mary

...Make a direct statement about what you're feeling, and see what happens. Maybe things have changed.

...Maybe it's not so dangerous. Over Mary

FADE DOWN

FADE UP

TITLE CARD: GENERALIZED ANXIETY DISORDER

TITLE CARD: TREATMENT

DONNELL: I think out of all the anxiety disorders,

...generalized anxiety is probably one of the more difficult to treat. And especially with the chronicity of anxiety. Donna talked about a year, a 28-year history she's experienced anxiety and worries for over fifty percent of her life.

DONNA: I told you that the tingling of the feet and the fingers and everything and I thought, hey, this is hyperventilation and these are why the symptoms are getting worse.

DONNELL: One, we need to get your arousal back down, under control, okay. I want you doing your breathing. And I want you slowing all your bodily movements back down again. I don't want you pacing, it's nice to go out for a nice relaxing walk, but I don't want you pacing, and I want you doing your diaphragmatic breathing.

I think if we can get your arousal back under control, your worries are going to seem less excessive. Alright. And we'll be able to, actually we'll be able to stop them but we can't do it till the arousal's back down. So get your breathing under control.

What I want you to do over the next week is monitor the times that you feel someone's placing a demand on you and you don't really want to do what it is that they are asking you to do. And I want you to write that down for me, okay? And bring that in and we'll use that as material in the session.

NARRATOR: For the past four years, Dr. Lewis-Hall has been treating LaVerne's chronic anxiety with a variety of techniques.

B-Roll: Lewis-Hall looking at chart

While cognitive-behavioral psychotherapy has brought positive results, it's through medication that LaVerne has found the most relief.

LEWIS-HALL: She's on Xanax and has done extremely well. The question you always have to ask yourself about someone who's on one of these medications is is now enough. Have they been on it long enough?

And usually what we do is to follow to ensure that they stay on an adequate dosage but are not overdosing themselves. And most people do stay on stable doses. If you start on X amount, you stay on X amount for the many years that you are on it. But periodically you have to review the case and know whether or not it's still warranted that a person would have to stay on medication.

7-34 18-12

LAVERNE: I'm not frightened of anything. I can ride an elevator. I can ride the subway. I don't think of any of those things anymore. And it just calms- it keeps me calm. I don't get anxious or anything.

But if do, then I'll- I'll take the medication or I'll talk to myself and tell me, you know, tell myself why, you know, that this is something that happens to me. And- and to let it pass

...because at one time I was trying to stop the feeling, and then it gets worse when you try to stop it, so it's best to let the feeling come on and go away.

B-Roll: CU LaVerne
Zoom out to see bench and water

I wouldn't do without it. Right now I would be afraid to not take it. You know, I would be very afraid to not take it.

FADE OUT

FADE UP

TITLE CARD: AGORAPHOBIA CLINIC:
WEEK TWO

NARRATOR: We returned to the Agoraphobia Clinic in Week Two of their program to see how the participants were progressing with their treatment.

B-roll: group

They had made great strides in only two weeks: Mary was now driving alone; Roger had crossed numerous bridges; and Patrick drove alone to Atlantic City.

Cut to CU Mary

Cut to CU Roger
Cut to CU Patrick

Although they had not become panic attack-free, there clearly was improvement.

Cut ot CU Goldstein

MARY: Well I got my license and I drove twice and like the second time I had a pretty bad panic attack so then I avoided it for a few years and then about two years ago, I drove like for a couple of weeks and then I had the panic attacks again so then, I haven't driven until now.

NARRATOR: Yesterday, on one of her driving assignments, Mary had--and survived--a panic attack.

Mary driving down the street

MARY: It was scary, I didn't think I could keep driving. But I did.

MARSHA: Linda was with you then?

MARY: No, I was alone.

MARSHA: So, where were you when you saw you were having it, the panic attack?

MARY: On City Line.

MARSHA: What did you say to yourself?

MARY: I got mad at myself. I cursed myself. I just get mad at myself and I just feel bad and think I should be like this and I shouldn't have to be afraid. No one else is afraid. I'm just like everyone else. And I would get mad at myself and that would give me more courage and I'd be able to keep going on.

ROGER: There are some bridges, some real, some, a couple, one in particular high bridges near the airport that I have not crossed by myself, and I'm not sure if I've crossed it with anybody in the car driving for six or seven years probably. And yesterday I had probably a total of 14 or 15 passes across those two bridges, that it felt great to be able to do that and not, and not have the panic attacks.

NARRATOR: Patrick describes the symptoms he worked through on the way to Atlantic City.

Cut to CU Patrick

PATRICK: Going down the road, going to Atlantic City. I noticed my breathing was getting shallow. I was mildly hyperventilating. And I sort of talked myself out of it.

I mean, I practiced my breathing techniques and everything and it went away, went away a whole lot quicker than it usually would. Usually in that situation before, I would have pulled over and been real, real, real scared. But from coming here and learning what I'm learning, and knowing what I know from here, I was able to handle it and keep going.

NARRATOR: As he surveys a nearby college campus, Patrick fantasizes about his future life as a college student.

B-Roll: Patrick and Welsh on campus

PATRICK: I think it would be a little bit scary but I would adjust to it, I think, pretty easily.

LINDA: So you'd say, 'Whew, this is hard.'

PATRICK: And then, after a while I'd say 'it's getting easier and easier and easier. I'd probably worry more about my classes than anything else, working classes, getting homework done there than being away from home. I think that would...

It's like two different people. It's like I was a kid last week, and an adult this week. I'm a lot more assertive, go places on my own a lot more easier, just completely different.

Over B-Roll: Patrick and Welsh on campus

...Now, I, there's real good hope that I will get to go to college.

FADE DOWN

FADE UP

TITLE CARD: CONTROVERSY OVER MEDICATION

NARRATOR: While there are similarities among most psychotherapies, the difference between using psycholgical and medical treatment is significant.

Just when to use these two forms of treatment, and in what combination, remains a difficult and often sensitive issue.

Dissolve to drawing: WS group therapy
Cut to woman therapist, Asian man

Cut to CU meds in woman's hands
Cut to WS woman with meds

SHULMAN: Some of the anti-anxiety medications are addictive. Very important to keep in mind. Some of the anxiety medications require very difficult withdrawals.

As a matter of fact, some people have noticed that withdrawal from Valium is as bad as withdrawal from heroin, in terms of the experience of the person. That it's not to be taken casually.

NARRATOR: Withdrawal is not the only danger with medication. Over Lewis-Hall

7-25 5:35

LEWIS-HALL: The benzodiazepines we're not sure about in pregnancy. The rule of thumb for medication in pregnancy is don't use it if you don't have to in pregnant women or in nursing women. Or in women in childbearing age, because they don't always know right away when they're pregnant and that first period, those first weeks that they don't know is really when the baby is being shaped, so you want to as careful as possible.

Some of the side effects, not of the benzodiazine group as much, but of some of the other groups are sedation, cognitive impairment, and they're not quite sure, although there's no real evidence on the table that it will cause any deformities in babies. But that something we don't want to find out. At least not the hard way.

7-26 4:45

CHAMBLESS: This is the reason why I so strongly believe in psychological treatment, there's also been great advances in medication treatment of anxiety and of panic, but if you don't keep taking these medications, you are virtually assured of relapsing.

7-27 17:00

GOLDSTEIN: In addition to that, it's very clear that some of the medication, the ones called minor tranquilizers, the benzodiazepines, in particular, Xanax, the most commonly used these days, actually interfere with one of the processes necessary for getting over, that is permanent change of the fear. And there is data to support that. We certainly see it clinically all the time.

LEWIS-HALL: Once you've made a diagnosis and the person is prepared for treatment, you discuss the options. When you think that it's legitimate is the same as you would think that medication was legitimate in non-anxiety-related illnesses.

So if you find that the intensity of the person's behaviors, feelings, and thoughts are so great that they interfere with their day to day life and they can't wait--so that if they're suicidal or feel that they might hurt themselves or somebody else, then you start medication right away if possible.

The second possibility is that once you've tried psychological or non-pharmacologic treatments and they have not worked, or the benefit is good but they're not quite 100 percent, it's possible to go ahead then and use medications.

The last possibility is- is that you plan ahead of time, to use medication in order to right the biologic wrongs in a person and prepare them to receive these psychological treatments that work so well.

FADE OUT

FADE UP

DONNA: Well, it's nice to wake up and be alive. I'm- I'm glad to be alive. It's like I was freed from a prison. I feel that I'm normal and that's the first time I've felt like I'm normal and that I wasn't crazy and that I wasn't insane for 28 years. And it's a good feeling. It's- it's like being freed.

ROGER: I've been given good coping skills and understand the dynamics of what's going on underneath the surface and we've learned a lot of lower level information about our childhood and in particular, I have gotten in touch with some- some things in my past that have, that explain this; it's not a mystery anymore. I- I think I understand, to a large degree, what's happening and that's three-quarters of the battle is- is knowing what, what's happening and being able to understand it.

MARY: I didn't know as much about it that I do now. And now, I know I'm not going crazy. I know I'm not going to die, I'm not going to faint and I know I can control it.

PATRICK: I told somebody that I was trying to catch up on a lifetime in two weeks; it sort of seems that way and it's just real weird. It's like a transaction from child to adult it seems like. Before it seems like I was depending on others and then now I'm depending on myself. I like it. I'm not alone. I'm with me. I don't know how to explain it.

LAVERNE: The future is- is- it looks good, it's gonna be good. It can't get any worse, I know that because those days were the darkest days I've ever had. So I- I can see the green trees now and I can here the birds sing, you know, and I'm not just going through the motions anymore. So- and then I'll know how to handle things from now on.

So I know the future's- is- is real good. No problems there.

#4

PSYCHOLOGICAL FACTORS IN PHYSICAL ILLNESS
AS BROADCAST SCRIPT
April 3, 1991

FADE UP ON LOGOS

NARRATION: Funding for this program was provided by The Annenberg/CPB Project.	The Annenberg/CPB Project
NARRATION: Sometimes, as we face life, we can master our experiences, sometimes we can't.	Mauve; fade up on music and pictures for open 1. boy looking into camera on stomach 2. children in schoolroom 3. girl at blackboard 4. boy alone with group off to side - zoom in on him 5. two people walking under catwalk 6. band 7. older black couple hugging 8. man and woman at table with chins in hands 9. man sitting on bed with face in hand 10. woman in mourning with hankie over eyes
MAIN TITLE	The World of ABNORMAL PSYCHOLOGY (over montage of photos)
SHOW TITLE	PSYCHOLOGICAL FACTORS AND PHYSICAL ILLNESS

KATHLEEN MORREL: I think there were a lot of things that put me in acategory that I was a candidate for cancer but I think that the emotional thing that I went through in this recent period of my life is what triggered the final onset of it.

DR. PINK: When these things have happened, I can relate it back to stress that I've- that I've had and, you know, I've felt- felt like I'm a tough guy sometimes, most stress doesn't bother me but I can- I can relate back to where there were stressful periods.

MRS. VARGAS: Even when the little kids were little and we had a baptism party, he knew that, you know, a bunch of friends and family were coming over and people would be here, he'd get sick and have a headache.

NARRATOR: People often do feel that their emotions can make them sick. How many times have we heard someone say they were sick with worry, that something upsetting was giving them a headache or an ucler. Teenagers are warned that they are giving their parents heart attacks or strokes when they come in way past curfew.

Drawings: woman executive with headache

Teenager & mother

And what about that friend, recently divorced, who always seems to be sick - or the widower who developed pneumonia soon after the funeral. Is it all a coincidence, bad timing, or is there more to it than that.

Widower on couch

Dr. Edward Katkin is a professor of psychology at the State University of New York at Stony Brook.

Over Katkin

KATKIN: There's an enormous amount of active research going on on the question of whether people's cognitive styles, their thought patterns, their emotional responses, can- can contribute to illness.

Then really basically the question is can you talk yourself into a real illness and everyone seems to think so. I mean it's common folklore; doctors tells their patients relax if they have high blood pressure as if the high blood pressure were caused by the stress. Everyone believes in some way that our emotional lives contribute to illness.

KATHLEEN: And there was a transition leading up to a divorce obviously. There's the separation and then there's the anxiety of starting a new life and did I make the right decision and- and all of that. And I think that that's when my immune system couldn't control anymore. I really think that's when it got out of hand.

KATKIN: It's a good working hypothesis there are good reasons to think it's possible because we know there's very good scientific evidence that- that emotional stress causes clear and profound bodily changes. Changes in heart rate changes, changes in blood pressure, changes in hormone secretion rates, changes in a variety of subtle automatic bodily functions.

And so since we know that stress can do that to the body, it seems plausible to think that those body changes might contribute to disease, but that critical question about whether stress induced bodily changes really do contribute to disease is not yet answerable we really don't know.

NARRATOR: What do we know? What role do psychological factors play in physical illness.

Drawings: Woman being examined by doctor

In the next hour we will explore this question by examining theories about causal factors in migraine headaches, cancer and coronary heart disease, the number one killer in the United States.

Woman looking distressed in bed

TITLE CARD: CORONARY HEART DISEASE

NARRATOR: Dr. Frank Pink is a 38 year old dentist who lives with his wife and three children in a quiet neighborhood in Gainsville, Florida. He had always thought of himself as being pretty healthy - but eight years ago he had a run-in with his heart and last autumn it happened again - only this time he landed up in the emergency room.

B-roll: Pink taking out the trash

PINK: And I was in the clinic here at the University of Florida with the students and I was just walking around essentially and I got a- a real..

B-roll: Pink in dental clinic

...crushing type of pain and I had to grab at my chest and my left arm started to go numb a little and pain- and pain went up into my left jaw and so those were all the signs that I had learned from my education that meant that possibly a person could be having a heart attack.

And so I went to the emergency room and they- they did an EKG there which seemed to be normal and then they gave me some nitroglycerin to see if that would help. And, in fact, it did make the pain feel better and so that worried me then because I thought oh no, this is a heart attack type of circumstance...

...My grandmother on my father's side died of a heart attack when she was in her early seventies. And on my mother's side, her mother died when she was 49 of some cardiac problems but at that point they weren't real sure what to tell her or tell my parents what she died from...

B-roll: Pink in dental clinic

...And then a few years ago when my mother was 58 she had a heart attack she survived that heart attack but it was young for her to have- have a heart attack.

NARRATOR: Had the family genes caught up with him? Dr. Pink found his symptoms quite disturbing. Luckily for him there was a Preventive Cardiology Program at the University of Florida Medical center. Dr. Marian Limacher, a cardiologist, is the director of the clinic.

B-roll: Pink in dental clinic

B-roll: Limacher walking down hall

W 3:21 8-9

LIMACHER: There are a number of risk factors and a risk factor is something that can be measured, something that can be assessed and has been shown through a lot of scientific research and study to be associated or causative of the disease we're talking about. And in this case, we're talking about coronary heart disease, blockages of the coronary arteries, the blood vessels that supply the heart.

And there are certain things that you can't change. For example, one's age, one's gender and one's family history is related to heart disease. The older you get, being male, and having family members who've had heart disease put you at risk. You can't do much about those.

On the other hand, there are several modifiable risk factors. Those include having high blood pressure, high cholesterol, being a smoker, having a sedentary life, being overweight and having a certain psychological profile seems to be risk factor as well.

NARRATOR: To assess Dr. Pink they had to know more about him. Dr. Nancy Norvell, a psychologist, was part of the team that evaluated Dr. Pink when he came to the preventive clinic.

B-roll: Norvell talking to Carol Cornell

NORVELL: Dr. Pink was someone who came to the hospital and came to the preventive cardiology clinic because he was concerned about his health, and had a family history of heart disease. He had been told by at least one physician that he might have mitral valve prolapse and most importantly he was experiencing chest pain particularly under periods of stress at work.

So when he came to the clinic, he really got a comprehensive evaluation. He got a medical work-up which is very important so he understood the significance of his chest pain and that it wasn't a heart attack, that it wasn't a symptom of heart disease. And he also got assessed by an exercise physiologist, a dietician and a psychologist.

NARRATOR: Dr. Pink's test results came out well.

Over Pink

PINK: They've told me essentially was that if I- the pains I've had, that kind of clamping pressure, and that they don't feel has been or there hasn't been damage to my heart to this point, but if I felt those kind of pains but they were a little bit different in character, that then I should go right to the emergency room because they don't want me to think that nothing's happening when- when in fact something- some things could be going on.

NARRATOR: So, according to Dr. Pink's doctors he might still be at risk for heart disease. One factor was his family history, the second, according to Dr. Norvell, was his psychological makeup.

B-roll: Pink working with wood & electric saw

NORVELL: He was very anxious at the time. He had a lot of stress, a lot of changes...

...that had happened in his life as he had taken on a new job, and moved- moved to a new- himself and his family to a new city. So he could, of course, perceive himself as being under stress and having a lot of changes.

PINK: When these things have happened, I can relate it back to stress that I've- that I've had and you know, I've felt like I'm a tough guy sometimes, most stress doesn't bother me but I can- I can relate back to where there were stressful periods.

NARRATOR: All the public service announcements warn us about the dangers to our hearts from high blood pressure, smoking, obesity, high cholesterol, and lack of exercise.

One major factor is often overlooked - our psychological make-up. Could the way we interact with the world put us at as much risk for heart disease as a high cholesterol level?

B-roll: PSA from the American Heart Association

NORVELL: One thing that in our psychological assessment of Dr. Pink that we saw was that on one measure he was showing some traits of what we call a Type A behavior pattern.

NARRATOR: The characteristics of the Type A personality are: excessive competitive drive in the absence of well-defined goals, impatience or time urgency, accelerated speech and motor activity, and hostility.

Drawings: executive at desk

man in bank line

KATKIN: I think that one of the most interesting aspects of the so-called Type A personality, or the hostile personality in heart disease is that this is also not news. If you- if you look back about 100 years ago you- you can find one of the great physicians in history, Sir William Osler, in an essay, talking about the hard driving person who needs to take charge of his life who's more likely to have a heart attack than- than the depressed or the weak or the anxious.

And so even 100 years ago physicians seemed to- to observe that there were certain kinds of aggressive, tough-minded, hard-driving, maybe nasty people who were predisposed to have heart disease.

NORVELL: What has happened through the years is that we have been trying to identify and understand what part of a Type A personality is really linked to heart disease, what is the critical component of Type A. And probably the most important, if not the most important, factor there is the hostility or anger component.

That's a very important component now that we're focusing on. A person could be job involved, they can even have a sense of time urgency, but the free-floating and the interpersonal hostility seems to be a very critical factor in understanding the link with heart disease.

NARRATOR: After thirty years of research and many inconclusive studies there continues to be heated debate over which components of the Type A personality are most highly correlated with coronary heart disease. It must also be remembered that there are plenty of non-hostile people who get heart disease.

B-roll: People on street scenes

KATKIN: I think what we need to do is zero in on all the possible causes of heart disease that arise from personality. And the only thing is that there isn't- it isn't likely that just identifying a trait is going to tell you whether someone is going to be at higher risk.

What you have to understand is how that trait interacts with a whole variety of social and environmental situations and so, what's really important is to understand what we like to call in psychology the person by situation interaction.

So that it may very well be that hostile people in different life situations are at extremely high increased risk because it's the hostility interacting with the lifestyle that can elicit the pathological changes in the physiology.

NARRATOR: A self-confessed workaholic, Dr. Pink was constantly putting himself on deadlines. But over working was only part of it. He was a perfectionist - very demanding of himself as well as of his colleagues and family and he often got angry if things weren't just the way he wanted them to be.

B-roll: Pink at dental clinic

B-Roll: Pinks at dinner

PINK: I tend to- to like to have everything as perfect as it can be and I will sometimes redo things that are probably fine but I redo them just because I think they could be a little better.

MRS.PINK: He always expects the house to be- everything to be in its place and the kids just can't life that way. They have to be kids so- so we try and keep the house spotless, especially where he's going to be. But they- they like to play and like to pull their toys out and like to- to make a mess once in awhile so that's what we have to deal with on a daily basis is trying to keep this house so that it's organized.

PINK: I tend to be impatient with myself as well as with other people and that's probably what I think is the biggest flaw in my character. I- you know, I- in fact, sometimes I'll be impatient and I tend to be more impatient with people that are closer to me...

...I haven't figured out the psychology of that yet but I try- you know, sometimes I'll be saying something or being impatient and I'll think to myself, you know, this isn't nice. I shouldn't be...

B-roll of Pink & family having dinner

...I shouldn't be acting like this. But it's almost like a monster in me. I can't- I can't control it. It- it just sort of comes out.

MEGAN: Now what are the things that are the hardest about him to live with?

CHRISTY PINK: He's too organized.

MEGAN: I hear everyone laughing about that. Now do you think that he's too organized, Jennifer?

JENNIFER PINK: Yeah.

PINK: I'll explode almost. I- I- I have a temper then that sort of comes out and you, know, sometimes it's occurred with students. I'll call them into a back room and I'll say, now what do you think you're doing. You know, we've been over this before and look at what you've done here and, you know, now we're going to need to do this or that.

Or at home I'll, you know, I'll get mad at one of the kids and I'll say, you, know how many times do I have to tell you...

...In fact the other day it was eye-opening; my little boy said to me, I had done something and I forget what it was and he looked at me and he says how many times do I have to tell you that. You know, and I thought, uh-oh, that's me talking, you know. That's- that's me coming back to him.

B-roll: boy at dinner table

NARRATOR: Anyone can experience stress. But if we turn too many of life's normal events into stressful situations our bodies can take a beating.

B-Roll: Pinks at dinner

NORVELL: When we talk about how stress might be related to heart disease, one way to think about it is a mechanical way. A person gets aroused, and we're talking about heart rate going up and we're talking about blood circulating through the body, we're talking about respiration and pulse increasing, and what happens is what's been termed a fight or flight response.

The body's getting ready to fight and stand its ground or flee. And that can be very adaptive but in stressful situations where that is being activated or that is happening, it can really create a wear and tear on the blood vessels; the resilience or how strong they can be is effected...

...The idea that you have your foot jammed all the way down to the ground with your accelerator...

B-roll: American Heart Association film

...and the other foot with the brake and that's really going to be some wear and tear on the vessels.

NARRATOR: So, psychological factors might play a large role in Dr. Pink's heart symptoms. As a prudent man, he wants to do anything he can to reduce his risk... stress management for instance.

B-roll: Pinks at dinner

NORVELL: I think the first component of stress management is helping the person understand that they do have control over their environment and while they may not be able to necessarily change the environment or the stressor itself, they certainly can make an impact on how they respond to the stressor and how they perceive the stressor.

NARRATOR: Working to reduce Dr. Pink's hostility was another goal. Somewhat reluctantly, he took the stress management course that Dr. Norvell had designed.

B-roll: Pink at dental clinic

PINK: Well, at- at first I- I probably had a bad attitude. I went into it thinking this isn't going to teach me anything I need to know or I'm not sure why I should be here but I'll give it a try because I'm concerned with what's happening.

So what- what we did. It was a six week course and we'd meet about an hour and a half a week and it was in a group, there were three other people in there. We would discuss things that were possibly stressful for the first few weeks and how we would handle those, what we did to try to handle them.

And then we would review those with each other. We'd talk about them as a group and say ok, this is a good thing to do - maybe you could have done this to relieve your stress some.

And pretty much take all situations and break them down into phases and see how you should handle it or how you should react and control your reaction to different situations and try to manage or control those things that you could control and those that you can't try to recognize that that was an uncontrollable situation. There was't anything that you were going to be able to do about it.

NORVELL: One of the second things that I do, or right after they kind of understand the model and understand that they do have control, is teach people a skill where they can have some physiological control. I think a lot of times we're scared of our bodies and we feel like they respond without us having any control when really we can have a significant control over our physiological response.

One of the techniques that you see used a lot in stress management is deep muscle relaxation. And there are different forms of this but basically deep muscle relaxation is a series of exercises where the person learns how to tense and relax certain muscle groups. It's generally done with 16 muscle groups and it's done in a 20 or 30 minute period. It's not just taking one deep breath and saying relax. But it's learning the difference between tension and relaxation.

PINK: I was sitting there and I was thinking to myself, you know, boy, this is a whole bunch of hocus-pocus and I can't believe I'm sitting here when I could be home doing something, you know, here, instead of wasting my time with this. But I started to do it and I did it at home a few times and at work and so now when I know things are building up or that, I'll go into my office and I'll shut the door so nobody knows I'm there essentially and turn down the light and then I'll do that...

...where I tense the different muscles and relax it and work through my body that way and it does work. I do feel better at the end of that and I feel, you know a little refreshed.

B-roll: Pink doing relaxation exercise in his study

It's not like I had taken a four hour nap or that but I feel refreshed - and a new outlook on things. I can, you know, walk out of my office and not be as tense and not be as you know, tight as I as I was when I went in there.

KATKIN: Stress management is an excellent technique for helping people feel better. And I recommend it for those reasons. People who may be at high risk for heart disease are feeling tense, they're feeling pressured, they're feeling all the ways that Type A people are supposed to feel, not enough time in the day, too much pressure on them, competing, fighting, struggling. That's very uncomfortable; it feels bad. They should go into stress management to take care of those feelings.

If a byproduct of that is that it reduces the risk of heart disease, that would be wonderful but I don't think anyone can prove it.

NARRATOR: Even though there is no proof that stress management will guarantee Dr. Pink a healthy future, he is convinced that it can make a difference. Among other things, he's trying not to be so hard on himself.

B-Roll: Pink working with wood

NORVELL: And that was, on one thing that was important for Dr. Pink to make some changes in is that he didn't- himself didn't have to be perfect and didn't have to expect other people to be perfect. That he didn't have to be working 12 hour days that there was no must or should that- associated with that...

...If he could drop back from that, take away that expectation that that was something that he had to do or that he should do that, he'd begun to relax a little bit, enjoy life and start adding some components and some activities that he also enjoyed. Not that he didn't enjoy work but that didn't have to be the sole part of his existence.

He needed to kind of be a little less rigid and be able to incorporate more things and have a little bit more balanced life...

...For example, Dr. Pink really enjoys building models and that's something he's been able to make time for because that's something that's relaxing for him and it helps him to manage his stress.

B-roll: Pink with plane

PINK: I've always loved airplanes since I was the littlest boy that I can remember and my parents tell me that when I was three and four years old I'd get airplane models even then and I loved airplanes.

NARRATOR: Dr. Pink bought his first radio operated plane when he was in dental school. But as his life became hectic he no longer made time for his favorite hobby. Now he does.

PINK: Now every Sunday after church and Sunday school and all that, I'll- I'll go out for a couple or three hours and fly and then I work with the planes at night. I try and spend an hour or so and...

...when I do that, I can get pretty engrossed in that and I forget about everything else and so it's kind of neat therapy.

B-Roll: Pink with plane

TITLE CARD: MIGRAINE HEADACHES

NARRATOR: We all know what it's like to get headaches.

ANACIN COMMERCIAL: Sometimes stress headaches grab you. The pain feels like a rope around my skull. I go for Anacin. Always have.

NARRATOR: But only some of us get migraines. Take Dillon Vargas.

Over commercial

Cut to Dillon

In many ways he's a typical 13 year old boy. When he's not playing video games with his brothers and sister, he's fighting with them. He loves sports.

B-roll: Dillon playing Nintendo w/brother & sister

DILLON: I've been playing sports since I was in second grade. I play soccer and football, basketball and boxing.

NARRATOR: Dillon is a 7th grader studying World War II in his social studies class. He loves the fact that his father shares his passion for athletics and he's awkward when asked about his girlfriend. Just an average teenager until we learn about his migraine headaches. His mother Robin Vargas talks about when the headaches started.

B-Roll: Family picture

Over Robin

MRS. VARGAS: I almost don't remember him not having a heachache. But I think he was probably around three or four when he started having them. The first few times he had them we rushed him to the hospital. He's kind of dark complected, he'd get completely white, he'd cry and scream; he's bang his head on the wall, said it made him feel better. You know he'd get real cold.

So we'd take him to the hospital. And they could never figure out what was- what was wrong with him at that age.

DILLON: First I'd get- I'd start to feel hot and then after a while I'd get tired and then I'd go upstairs and I'd- I'd lay down in the dark and then and sometimes I'd hit my head and then pretty soon I'd fall asleep and I'd wake up and throw up sometimes and I'd eat.

NARRATOR: As awful as these symtoms sound, they're quite typical of migraine headaches.

Over Dillon

The pain is usually on one side of the head, severe and throbbing. Exposure to loud noises and bright lights can be excruciating. They can last from minutes to days and be incapacitiating.

Graphic: Dillon
Add: Severe & throbbing

ADD: Lasts minutes to days

Lose words

And for people like Dillon, who have classic migraines, the headaches are often preceded by "auras" symptoms like --- seeing zigzag lines, or flashing lights, tingling or numbness in an arm or leg, restlessness and confusion.

ADD: Auras

ADD: zigzag lines
ADD: flashing lights
ADD: tingling or numbness
ADD: restlessness
ADD: confusion

These warning signals occur approximately thirty minutes before the onset of the migraine.

As many as 20 million Americans get migraine headaches each year with women out numbering men 3 to 1. 5 to 7% of children and adolescents get them.

Cut to MAP
ADD: 20 MILLION
ADD: Women outnumber men 3 to 1
ADD: 5-7% children and adolescents

KATKIN: The actual mechanism of migraine is not very well understood. But it's not considered to be a muscle tension headache, it's primarily a disorder of the cerebral vasculature and has- and has to do with uncontrollable constrictions and dilations of the blood vessels in the brain.

NARRATOR: Even though the mechanism is not well understood it seems to be a function of the sympathetic division of the autonomic nervous system.

B-roll: Dillon reading

Graphic: Dillon

The sympathetic nervous system is our emergency preparedness division. It mobilizes us when we are in danger. Our heart rate increases, respiration accelerates, salivation and digestion are inhibited. This aroused state seems to trigger migraine headaches in some people.

ADD: Sympathetic Nervous System Arousal, Emergency preparedness

ADD: Heart rate increases
ADD: Respiration accelerates
ADD: Salivation & digestion inhibited

KATKIN: And the reason we believe that is that one of the most effective medical treatments for the prevention of migraine is to give drugs which block the action of the sympathetic division of the nervous system.

So what they- a drug called Propanal which is- which is an almost standard treatment for people with heart disease because it prevents the heart from being overaccelerated also has preventive effects on migraine sufferers.

And that leads people to conclude that in some complex way, overexcitation of the- of the sympathetic portion of the autonomic nervous system is a trigger for the migraine headache.

NARRATOR: Other triggers are thought to include: physical and emotional stress, changes in altitude or weather, poor sleeping habits and hormonal changes in women. Certain foods have been implicated, such as red wine, aged cheeses and chocolate.

Drawings: Woman in bed
ADD: TRIGGERS
ADD: Stress
ADD: Changes in altitude or weather
ADD: Poor sleeping habits
ADD: Hormonal changes
Dissolve to Drawing: foods

And for that reason, migraines have often been treated by avoiding certain foods and beverages.

Other treatments for migraine fall into three categories: abortive, which is something done to to end the headache after it has begun, prophylactic, in which something is done on a regular basis to prevent the onset of headache and, palliative, in which something is done to lessen the distress of the headache episode.

B-Roll: Pills
ADD: Pharmacological Treatments
ADD: Abortive

ADD: Prophylactic

ADD: Palliative

All conventional therapies are pharmacological and they all work only to a certain degree.

B-Roll: Woman putting pill bottles in boxes

KATKIN: It's a mysterious disease. It affects a great many people and there are- there are as of this date no truly effective medical interventions for migraine. The medical interventions that we do have often have terrible side effects.

NARRATOR: And what if medication doesn't work? As Dillon's migraines got worse, his parents took him to pediatricians who prescribed Tylenol and said he was too young to take stronger medication. But Dillon continued to suffer terribly and his parents were distraught.

B-roll: Photos of Dillon as little boy

MRS. VARGAS: Eventually, we went to a- like a class that they had out at the university where doctors spoke on it and we stayed afterwards and talked to the doctors and told them, you know, that the pediatrician said that he didn't think that we needed to do anything about it.

And he asked how often he had them and we'd say, it varies. Sometimes one a week, sometimes three then have two or three right in a row. And he said, and anytime if a headache prevents him from being a normal, little boy, then it- then it's time to do something about it.

NARRATOR: Dillon's parents took him to a neurologist who prescribed medication to treat the migraines but things only got worse. He continued having two or three headaches a week and for the first time in his life had two in one day.

B-roll: Dillon on bunk bed

MRS. VARGAS: And so we went in and they did adjust the medicine. Then's when he started having some trouble in school. Teachers said they weren't quite sure he was always there. I mean, he was there but he just kind of sat there and his grades went down. So we took him back in again and I said, I don't think this is working. I want to take him off the medication completely.

NARRATOR: Since research suggests that stress can be a trigger, perhaps stress reduction can be a treatment for migraines.

B-roll: Mrs. Vargas & Dillon walking in the clinic & in waiting room

The neurologist suggested that Dillon try biofeedback and Mrs. Vargas took him to the Behavioral Medicine Clinic at the Medical College of Ohio at Toledo.

The Clinic treats migraines as well as other stress related illnesses such as, irritable bowel syndrome, chronic pain, and hypertension. They use stress reduction techniques including relaxation exercises and biofeedback.

KATKIN: What's happening physically when you do the relaxation exercises is number one, the major muscle groups of the body lose tension, the blood flow to the peripheral parts of the body is increased. The- the sympathetic nervous system which is that part of the autonomic nervous system that prepares you for emergency reactions, tones down so that your body becomes generally less prepared for- for emergency fighting or running.

And when people learn really good relaxation techniques and learn to regulate their bodily tension it indirectly prevents that sympathetic nervous system from becoming over excited and therefore prevent the trigger that will cause the migraine.

NARRATOR: Dr. Guillermo Arqueta-Bernal, a psychologist, is the Director of the Psychiatry Outpatient Clinic at the Behavioral Medicine Clinic.

B-roll: Mrs. Vargas & DIlon in waiting room, Dr. Bernal comes in

BERNAL: One of the things that we think is that in almost all kinds of stress related disorders or psychosomatic disorders, for example, one of the things that we find out is that there are a variety of factors that come together. One is perhaps a genetic predisposition. The other are- the other factors are things like your lifestyle, your belief system, your past learning exeriences.

It's not that we are saying that there's a one-to-one relationship between stress, for example, and these disorders. We're saying there's a relationship but it may not always be necessarily on a one-to-one. So that there are a variety of factors. There are a multifactorial kinds of situations that will bring about this problem.

NARRATOR: Family history plays a role in 70 to 80% of the people who get migraines. Dillon's father had two aunts who suffered with migraines.

B-Roll: Dillon and father watching TV

In terms of stress, his parents admit that Dillon is their most sensitive child; that he always got tense and excited before big events such as holidays and the start of the school year.

MRS. VARGAS: It wasn't necessarily bad stress. Just certain- before a holiday when- when little kids got- get all excited. His birthday is just around Thanksgiving too. Starting then, he would start, you know, anticipating his birthday or Thanksgiving and he would start having headaches. And then again just before Christmas he'd get them. Before school, you know, he'd get excited at the end of summer, he's start having headaches.

BERNAL: How many headaches, if any, have you had since the last time I saw you?

In Bernal's examination room

NARRATOR: Dr. Bernal took Dillon's medical and personal history. Then he did a psychophysiological profile. He wanted to measure certain physiological responses when Dillon was placed under a variety of stressors. He was looking for signs that Dillon was especially susceptible to stress. One of the signs of such stress and tension is cold hands.

B-roll: Bernal & Dillon

BERNAL: We look at what happens to the tension in the muscles in the forehead and neck for example. What happens to the temperature of the hands? Does that drop? For example, a drop in temperature would mean that person is becoming tense.

One of the first questions I asked is, what about his hands. Does he report having cold hands or cold feet? That's a very common feature we've noticed with migraine headache suffers.

NARRATOR: The answer was yes. Dillon's hands did indeed become cold at moments of excitement. This indicated that his autonomic nervous system was aroused.

B-Roll: Dillon being examined

BERNAL: When a person becomes aroused, there's an increase in heart rate, respiration rate changes, the hands now become cold, you may get a knot in the stomach, the muscles, for example.

NARRATOR: Could the process be reversed? Was there a way to reduce the stress and tension and arousal in Dillon's life?

B-Roll: Dillon being examined

Obviously, getting rid of Christmas, birthdays and other exciting events wasn't realistic. What about training Dillon to relax under stressful conditions. Would that work?

Enter: biofeedback and relaxation exercises. They were the tools Dr. Bernal would give Dillon to reduce his stress and thereby treat his migraines.

BERNAL: Biofeedback is simply a way of providing individuals with immediate information about ongoing physiological processes that they are usually not consciously aware of. For example, heart rate, that is, we don't know what our heart rate is unless we take our pulse or use a stethoscope to listen to it or blood pressure, for example, or muscular tension.

And, in biofeedback, then, what we do is we're able to measure the activity going on, let's say, for example, in a person with headaches.

NARRATOR: Dillon can monitor the tension in his forehead and neck muscles by watching his response line.

B-Roll: Dillon hooked to computer

The goal is to keep his response line at or below the standard line drawn across the middle of the screen.

Zoom to CU computer screen

He can tell when the temperature in his hands is rising by changes in the sound of the tone. Relaxing diminishes the activity of the sympathetic nervous system which leads to increased blood flow and a warming of the hands.

Cut to Dillon

BERNAL: Now one of the easiest ways of thinking about feedback is thinking about, for example, applying makeup or shaving. When we first start these activities, it is very hard to do a good job if you don't have information. If we don't have the mirror, we don't know how we're doing this. The mirror in essence is the simpliest form of feedback. By looking in the mirror, I can see that I've left a part of my face, for example, unshaved or I don't have enough makeup on that part. And the idea is that the mirror serves as a feedback bit of information.

DILLON: It's strange because I don't know how I do it, but I just think in my head that my hands get warm and then all of a sudden they get warm.

NARRATOR: Dillon does his relaxation exercises at home twice a day.

B-roll: Dillon doing exericses

TAPE: Take a deep breath and slowly exhale.

DILLON: I listen to the tapes he gave me and it relaxes me.

NARRATOR: But what proof is there that relaxation actually reduces the occurence of migraines.

In a recent analysis of numerous studies, Dr. Frank Andrasik compared two treatments for migraine: drug therapy and behavioral treatments such as biofeedback and relaxation exercises.

The response to this kind of self-regulatory treatment was virtually identical to that of the most widely prescribed drug for migraine, a beta blocker that decreases the activity of the sympathetic nervous system, the same goal of biofeedback and relaxation exercises.

B-Roll: Pill bottles

BERNAL: You've only had one headache?

DILLON: Yeah, on Christmas Eve.

BERNAL: On Christmas Eve?

DILLON: Yeah.

BERNAL: And how long did that headache last?

DILLON: About a couple of hours.

BERNAL: A couple of hours?

NARRATOR: Since Dillon began working with Dr. Bernal six months ago, he has had only one migraine.

B-Roll: Dillon & Bernal working

Even people at his school can see a difference in him.

MRS. VARGAS: Every teacher there said he was more with it; he was more alive, he smiled, he did talk, which were things that he wasn't doing before. He seemed like he was a lot happier overall. He had more energy...

...He didn't fall asleep at home like he did when he was on the medicine, so he was more normal, average boy.

B-roll: Photo Dillon in football suit

TITLE CARD: BREAST CANCER

NARRATOR: It is estimated that 1 in 9 American women will get breast cancer at some time in their life.

B-roll over title card BREAST CANCER

KATHLEEN: When I first felt the pain in my breast I thought I had pulled a pectoral muscle. I was doing a lot of upper body exercises trying to trim down. And I let it go a couple of weeks thinking that was what it was.

NARRATOR: Kathleen Morell is 44 years old and works for Columbia pictures. She lives with her daughter Ariana in Van Nuys, California.

Over Kathleen

KATHLEEN: And I went to my gynocologist who checked me out and said look, you know, you just had a good mammogram 6-8 months ago why don't you wait until September and check it out. I think it's just the muscle healing itself.

I still was obsesssing. I had a doctor tell me that I was alright but I was still obsessing.

KATHLEEN: I went home and I was cranky and I apologised to Ariana one night and said, Ariana, I'm really sorry that I've been out of sorts lately but this pain is bothering me. And she very simply- this ten years old looked at me and said, go get a mammogram and I said, oh I don't think my insurance will cover two in a year. And she said so pay for it, you know, then you'll know tomorrow if you're ok or not; if you're not you'll take care of it.

B-roll: Kathleen & daughter morning/getting Ariana up, making breakfast

This is from a 10 year old, right and I'm the wise old mother right. The next day I made my appointment and I went the following day and I credit her with saving my life.

NARRATOR: The diagnosis was breast cancer.

KATHLEEN: And someone escorted me into a small room and it flashed on me that I'm going to die of cancer and it was paralyzing.

NARRATOR: The major risk factors in breast cancer are: being over 50 years of age, not having a child, not having a child until after 30 and a family history of breast cancer. Kathleen's mother died of cancer.

B-roll: People on street
ADD: Risk Factors
ADD: Older than 50
ADD: Not bearing a child
ADD: First pregnancy after 30
ADD: Family history

And she understands that both biological factors and genetics played a role in her breast cancer but she believes that psychological factors were also involved.

B-roll Kathleen & daughter eating breakfast

KATHLEEN: I would say that it probably started about seven year- about eight years ago, and with a traumatic event that happened in my life that devastated me. And I didn't cope well with it. I didn't know how to cope with it. It was- it was major. And I started to come back from that and I think my immune system kicked in and kept it in control during that period but it was stressful; and just this last year I did get a divorce. I got a- my divorce was final in May and my can- I mean March and my cancer was discovered in May.

NARRATOR: While there is no evidence that emotional trauma can directly CAUSE disease there are many studies that associate stressful events in life with higher levels of disease.

B-roll: Kathleen & Ariana at breakfast

KATKIN: Let's suppose you have someone who has a high genetic predisposition to develop a certain kind of cancer and let's suppose that if the immune system is compromised in some way this cancer might express itself. And let's suppose that psychological stress results in the suppression of certain lymphocytes that are needed to prevent this cancer from expressing itself. One might have a confluence of factors all leading together that lead to the onset of the disease.

Now, no one would want to say it was the psychological stress that caused the cancer, but I don't think that we can so easily conclude that the psychological stress wasn't at least a partial contributor to it.

NARRATOR: Currently a great deal of research is being done to determine what effect our emotions may have upon our physical health. A new field of study is devoted to that investigation and it's called psycho-neuroimmunology or P.N.I.

B-Roll: Laboratory

P.N.I. studies the interface between the brain, emotions, thinking, feeling, and the immune and endocrine systems and how those interact and talk to each other.

BORYSENKO: The immune system is our most basic sense of recognition. It functions to distinguish what is ourself from what is not self. So, for instance, a virus or a bacteria coming in from outside would be recognized as not-self. And our immune defense system would launch its missiles. And there are two kinds of basic missiles that the immune system launches, called B and T cells.

B cells essentially are a type of lymphocyte that makes a humeral factor, that is a factor that goes into the bloodstream, antibodies that we all know about and neutralizes viruses, bacteria, parasites, through the release of antibodies.

T cells function in hand-to-hand combat. The cells actually zip right in there and do battle with the cancer cell or do battle with the bacteria. For years, we used to think that the immune system actually functioned in isolation and it's peculiar that anyone would think that because no system of the human body functions in isolation.

KATHLEEN: I think there was a lot of things that put me in the category that I was a candidate for cancer but I think that the emotional thing that I went through in this recent period in my life is what triggered the final onset of it.

NARRATOR: The immune system and nervous system communicate with one another through neuropeptides.

Graphic: Kathleen

ADD: Neuropeptides

BORSENKO: One of the most amazing links between the immune system and our thoughts and feelings have to do with neuropeptides. These are tiny little proteins just a couple of amino acids long that have been discovered over the last ten years. Endorphines, for example, are neuropeptides, those painkillers that our brain produces. And now, about 60 of these have been identified.

And the major site in the brain where they're produced is the limbic system. And the limbic system is the seat of our emotions. We experience joy, anger, sorrow, confidence, all of these feelings, love, through the limbic system. And it turns out that each one of these emotions has a different chemical fingerprint. We experience them, we actually release these various little peptides down into the blood stream and they bind to various cells in our body including the cells of our immune system.

KATKIN: Now that we know that the immune system is affected by neuropeptides and we understand that psychological stress can have direct effects on such phenomenon as the proliferation of lymphocytes it becomes scientifically acceptable now to believe what all the grandmothers used to tell us. Which is relax or you'll get sick.

NARRATOR: Janice Kiecolt-Glaser and her husband Ronald Glaser are well-known researchers in the field of psycho-neuroimmunology. She is a psychologist and he is the Chairman of the Department of Medical Microbiology and Immunology as well as professor of Internal Medicine at Ohio State University College of Medicine. Dr. Glaser points out the direct link between stress, the immune system and disease.

B-roll: Glasers working together

GLASER: I'll start by saying that anything that the immune response is important in controlling theoretically is modulated by psychological stress. And there are three major groups of diseases for which the immune response plays a major role, auto-immune disease, infectious diseases like colds and virus infections, and cancer, so that one could speculate that anything that would be not good for the immune response wouldn't be good for all three of those classes of diseases.

NARRATOR: Drs. Kiecolt-Glaser and Glaser began collaborating in the early 1980's.

Over Glasers working

GLASER: Jan convinced me that it would be worth trying to design a study to do between the two of us. So we designed a study to look at our medical students and the impact of academic stress on the immune system to see how it would go.

NARRATOR: Blood samples were taken from the medical students a month before final examinations and at the beginning of their examinations. The results surprised the researchers.

B-roll: students studying in library

GLASER: In summation, all the studies have told us so far that the immune system, particularly the cellular immune system, can be modulated by academic stress, by psychological stress, and it can be modulated by, at many different levels...

B-roll: library students studying

...And so what we're doing now is to explore these interactions to try to learn how these systems- the body's systems are interacting with each other to ultimately wind up with a depression in the immune response.

NARRATOR: Other studies have found supression of the immune system in several populations experiencing various psychological stressors. Among them: people who were separated, divorced or experiencing marital discord, bereaved spouses, and students and who reported being lonely.

Drawing: Asian therapy

Family yelling at each other

Man sitting along on couch
Woman in kitchen toying w/food

KIECOLT-GLASER: The med student studies told us that even a really commonplace or real simple everyday stressor could alter immune functions so we wondered, what if you had a very chronic, a very long-term stress? Something that goes on for years at a time? What would happen actually to immune function?

NARRATOR: The Glasers are in the fourth year of a five study of the caregivers of Alzheimer patients.

Over Glasers working

KIECOLT-GLASER: With caregivers of Alzheimer's victims, you have a really severe, really long-term chronic stress. In some ways it's analogous to the bereavement work in that some caregivers call the process one of continual bereavement as they watch parts of someone they know and love, dying.

To study caregivers, we reasoned that we would look at not only caregivers but then controls, people who are the same age, the same sex, but who don't have any caregiving responsibilities so that we'd know if it were simply the caregiving responsibilities verses the absence of them.

And we found that over the course of several years in studying our caregivers, from the first to the second year in the study, immune function declines particularly in spouses who were caregiving for a spouse who tended to be older and who tended to be providing more extensive care.

NARRATOR: What makes this study noteworthy is that the caregivers were ill more days than the control subjects. The researchers, with the subjects permission contacted their physicians to validate this data.

B-roll: Glaser w/other researchers

KIECOLT-GLASER: We find that there's really excellent correspondence that when caregivers report certain symptoms, we have a good match...

...with physician records that there's a good match with infectious illness.

So it gives us some of the very first data that suggests that people who are under very chronic stress who show declines in immune function, actually have a greater health risk.

NARRATOR: So, research does show that stress may contribute to increased illness. Yet experts advise caution when trying to draw cause and effect relationships between psychological factors and such diseases as cancer.

B-roll: Kathleen reading

GLASER: I do get a little concerned about people who take what little scientific evidence is there and then they take that in order of magnitude or two and run with that and propose this has major implications for how patients should be managed, particularly cancer patients. I think they're- they're out there a little too soon. I think they have to wait for the scientific evidence to be generated to answer that question.

KIECOLT-GLASER: We don't know yet what these immune changes actually mean by and large for real health outcomes and especially for really serious illness. I think we have good preliminary evidence at this point that there may be increased risk for infectious illness but when you talk about what this means for example, for someone who has cancer, you need to tread cautiously. Certainly, I think that we know the way you think and feel can effect your immune system but that may not be such a large effect that will actually influence the outcome of an illness.

NARRATOR: Recent books and articles have made dramatic claims about the causes of and cures for cancer.

Montage of books/magazines about healing

KIECOLT-GLASER: I get concerned about the people who say that you should be able to stop your cancer, stop progression of your cancer and that if you don't in some way, you should feel guilty. Because we know that - certainly we know that having cancer is already a significant burden.

I don't think there's any evidence you're at fault if you have cancer and if you can't stop the progression of your cancer, that has nothing to do with your being a good or bad person. And many of the less conventional therapists might suggest that that's he case and that's a real matter for concern.

NARRATOR: Even cautious scientists, agree that our minds and bodies influence each other. What they are only beginning to understand is how they do it and how much. Given what is known, however, Kathleen Morell feels it makes sense for her to battle her cancer with both her body and her mind.

B-roll: Glaser in lab

B-Roll: Kathleen napping

She had a mastectomy, underwent a course of chemotherapy and recently had breast reconstruction. But she also engaged in some psychological therapy.

KATHLEEN: I had complete confidence that what they were doing was right that my medical treatment was right but there was other stuff I needed. My body was being taken care of but I needed my mind taken care of cause it's scary.

NARRATOR: Dr. Robert Hoffman is a psychiatrist at the Breast Center where Kathleen is a patient. The philosophy of the Center is to treat each patient as a whole person.

Over Hoffman

HOFFMAN: What we tend to try to do is help people to understand the basic ingredients that seem to correlate with better quality of life and even improve survival.

And those seem to be emotional support, psychological support and taking care- that's part of taking care of the spiritual needs of the human being as well as the physical or biological needs. So there are a variety of approaches that not only help people to manage stress but also to nurture their spirits...

...Some people can get psychological support from participating in a group of cancer patients who share their experiences with each other.

B-roll: Kathleen in group therapy

NARRATOR: Leonne Schill-Coady, a Registered Nurse, with a Masters Degree in Psychiatric nursing, runs the group that Kathleen is in.

KATHLEEN: My goal is, May 30 will be my one year anniversary of finding the breast cancer at the Breast Center and when I walk into the Breast Center on May 30 of this year ladies, I'm going to have hair and it's going to be colored. It's going to be cut and I'm going to have two breasts that match pretty well cause I'm going to lose weight and I'm going to be looking good for 91.

LEONNE: Maybe this idea of support isn't just making the patient feel better in dealing with their day to day operations better, maybe this is really impacting physiologically. And that's what- what I believe...

...And that's what I've seen with my women.

Over Group

WOMAN IN GROUP: They're growing up now and there's- there's this part of me still that has a hard time sharing cancer with them and I sort of want to protect them but- but I found out now that they're getting little older, that it's...

ANOTHER GROUP MEMBER: How old are they now?

WOMAN IN GROUP: They're 15 and 13. Yeah. They're okay. And so we talk a little bit more about it and my fears of am I going to be okay. And I still feel things and- and immediately just panic.

WOMAN IN BLUE: I think we've all been through that. When I do get depressed though, I go in and I listen to my tapes. The meditation. It's- they've- they've done wonders for me. I don't know whether I would have been able to- or how I've been able to handle the- the- the fear of reoccurring cancer.

WOMAN IN BLACK: I didn't feel very good and I think when you don't feel good, you're thoughts- you know you think more. You know what I'm trying to say?

WOMAN IN TURBAN: I don't know about anybody else but with- I don't know if it was flew or in the chemo because usually I get kind of chilled anyway but it was so bad this time. I had sweats on. I had another ski cap that I have that I wear over my head at night and I had- I had wool slippers on and I was under the blankets and still freezing.

LEONNE: We don't want to be making claims that we can't support but- but the mind/body connection is absolutely there. It's there every instant. When the mind thinks the body listens.

So whatever goes through the mind, the body hears it. And- and you can just work with that.

NARRATOR: Two recent studies suggest that psychological support may actually have biological consequences.	B-roll: Group
Sandra Levy and her associates at the Pittsburgh Cancer Institute have studied the effects of social support, fatigue and depression on the immune system, especially natural killer cell activity, in women with breast cancer.	Graphic: Group ADD: Psychological Factors ADD: Social support ADD: Fatigue & depression symptoms Lose words

Natural killer cells play a surveillance role in curbing maligant cell spread.

ADD: Natural killer cells

In general terms, Levy found that women who felt they had lots of social support had greater levels of natural killer cell activity than those who did not.

ADD: Social Support
ADD: more natural killer cell activity

At Stanford University Dr. David Spiegel studied a group of women with metastatic breast cancer. They were divided into two groups.

Drawing: Magazine study

One group received medical care plus a year of weekly supportive group therapy with self-hypnosis for pain; the control group received standard medical care only.

Zoom in on left group

Right group

The general finding was that patients who received group therapy survived an average of 36 and a half months from the onset of intervention; the control group an average of almost 19 months. In other words, the treatment group lived twice as long.

Woman's group

KATKIN: I think that's a remarkable finding and I'm delighted that- that- that this finding is here. I'd like to see it replicated. I'd like to make sure it's firm and if it is replicated and if it is a firm finding, well then I think psychologists have an awful lot of work to do to discover just what the critical ingredient is in the psychotherapeutic intervention that prevents the relapse and it may very well be that the psychotherapeutic intervention is a sufficient stress reducer so that the immune system functions more effectively than it would under chronic stress.

NARRATOR: While experts agree that further research is necessary, Kathleen Morell is convinced that her mind can play an active role in her recovery.

Over Katkin

Over Kathleen

KATHLEEN: If stress can make you sick, that your mind is also capable of convincing your body to get well.

Fix garbage

NARRATOR: In addition to her on-going medical care, Kathleen does relaxation exercises.

B-roll: Kathleen doing relaxation part of guided imagery

MS

cu w/ pan to fingers

TAPE: Lie on your back, legs uncrossed, arnms at your sides. Start by making a fist. Think to yourself, now I want to relax.

WS

MS
cu → pan to hand
WS
cu to pull out
cu w/ slight push

NARRATOR: She also practiCes guided imagery, where she visualizes the cancer cells within her being destroyed by her immune system.

cu to pull out

Though there is no scientific evidence that this exercise actually destroys cancer cells, it does give Kathleen a sense of having some control over her disease.

cu w/ slight push

KATKIN: It is probably the case that if a patient like Kathleen Morrell believes that what she is doing is going to prevent her from relapsing, she should certainly continue doing it...

...Her peace of mind may be a very important tool in fighting a relapse, in preventing a relapse...

B-Roll: Kathleen napping

...And now, what I said before was that if you have the genetic predisposition and if you're exposed to the toxic environment and if all the factors are correct and on top of that your immune system is compromised by stress, it may contribute to the- to the development of the disease.

By the same token then, if your immune system is not going to be compromised by stress, because you're learning how to manage your stress and how to control your stress, it may give you a little bit of an advantage in preventing a relapse of the cancer or in keeping- in helping suppress the cancer.

KATHLEEN: My biggest fear of course is reccurrence or death, but if I'm living my life and not in the future worrying about that, which gets easier each day -- it really does; there's a lot less thought process than there was when I was first diagnosed -- then I'm going to have a good life no matter when it ends. I'm not going to have to- you get a choice you can plan your funeral or you can enjoy your life and I chose the positive.

TITLE CARD: SUMMING UP

NARRATOR: For Dillon Vargas, Frank Pink and Kathleen Morell, people whose physical ailments are vastly different, there seem to be at least two common elements:

B-Roll: Dillon
B-Roll: Pink
B-Roll: Kathleen

They believe that stressful events of one kind or another, have played a role in the onset of their illnesses.

B-Roll: Pink at dental clinic

And they believe that stress reduction, in the form of biofeedback or relaxation exercises can help them.

B-Roll: Dillon hooked to computer

For these three people, at least, the result seems to be an increased calmness, self-confidence, empowerment, and a lessening of symptoms. For the rest of us, it's an on-going question.

B-Roll: Kathleen napping

B-Roll: Pink doing relaxation

Increasingly, researchers are trying to discover the exact dimensions of the role our emotions and other psychological factors play in our physical illness and physical well-being.

B-Roll: Dillon w/brother & sister

B-Roll: Kathleen w/daughter in kitchen

New York State Department of Motor Vehicles

FREEDOM OF INFORMATION REQUEST FORM

NEW YORK STATE DMV

↓ *Requester, enter your Name and Address* ↓

_____

_____

_____

Daytime telephone
number *(optional)* _____

PAYMENT METHOD ● **DO NOT SEND CASH** ●

☐ Exempt ☐ Check ☐ Money Order
☐ MasterCard ☐ Visa
☐ American Express ☐ Discover Card

Account Number _____

Expiration Date: _____

Authorized
Signature ➧ _____

In the following space, describe in detail the records you are requesting:

_____

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Please read the following information, and sign below, before submitting your request.

Fees: Section 202 of the Vehicle and Traffic Law requires a $10.00 search fee and a copy fee of $1.00 per page. The search fee must be charged for every search even if no record is found. The fee for records that are not covered by the Vehicle and Traffic Law is twenty-five cents per page.

Because you may not know the correct fee when you make this request, we will send you a bill. In some cases, we may send an estimated bill and request payment before sending the records to you. Checks should be made payable to the Commissioner of Motor Vehicles.

To the best of my knowledge, the documents I am requesting (example: Insurance Code List, vehicle inspection report, copy of V&T Law) do not contain any personal information.

➧ _____
(Requester's Signature - *REQUIRED*)

Certain personal information is protected by the Federal Driver Privacy Protection Act (18 U.S.C. 2721 et seq) and also by sections 87 and 89 of the Public Officer's Law. If the records you are requesting may contain personal information such as name, date of birth or address:

1. identify your permissible use from the list on page 2 of this form.
2. sign the certification statement near the bottom of page 2.
3. include a photocopy of your identification: driver license or state-issued non-driver ID card. (You may black out the picture.)

➔ **Step 1)** Check the use of the records you are requesting.

1. ☐ Use by any government agency, including any court or law enforcement agency, in carrying out its functions, or any private person or entity acting on behalf of a federal, state, or local agency in carrying out its functions.

2. ☐ Use in connection with matters of: • motor vehicle or driver safety and theft; • motor vehicle emissions; • motor vehicle product alterations, recalls, or advisories; • performance monitoring of motor vehicles, motor vehicle parts and dealers; • motor vehicle market research activities, including survey research; and • removal of non-owner records from the original owner records of motor vehicle manufacturers. 18 U.S.C. Sec 2721 (b)(2)

3. ☐ Use in the normal course of business by a legitimate business or its agents, employees, or contractors **ONLY:**
   - to verify the accuracy of personal information submitted by the individual to the business; **AND**
   - if such information as so submitted is not correct or is no longer correct, to obtain the correct information, **BUT ONLY** for the purposes of preventing fraud by the individual, or pursuing legal remedies or recovering on a debt or security interest against the individual. 18 U.S.C. Sec 2721 (b)(3)

4. ☐ Use in connection with any civil, criminal, administrative, or arbitral proceeding in any federal, state, or local court or agency or before any self-regulating body, including:
   - the service of process • investigation in anticipation of litigation • the execution or enforcement of judgments and orders **OR** • pursuant to an order of a federal, state or local court. 18 U.S.C. Sec 2721 (b)(4)

5. ☐ Use: • in research activities and: • in producing statistical reports, **so long as** the personal information is not published, redisclosed or used to contact individuals. 18 U.S.C. Sec 2721 (b)(5)

6. ☐ Use by any insurer or insurance support organization, or by a self-insured entity, or its agents, employees, or contractors in connection with:
   - claims investigation activities • antifraud activities; • rating; or • underwriting. 18 U.S.C. Sec 2721 (b)(6)

7. ☐ Use by any requester if the requester demonstrates that he/she has obtained written consent of the individual to whom the information pertains. 18 U.S.C. Sec 2721 (b)(13)

8. ☐ Use specifically authorized under NYS law if such use is related to the operation of a motor vehicle or public safety. Cite the law here: _____ 18 U.S.C Sec 2721 (b)(14)

9. ☐ Any personal information in the documents requested pertains to me.

10. ☐ For any other purpose specifically authorized under the law _____ .

Note: If you checked any boxes from 1 through 10, complete Steps 2 and 3 below.

➔ **Step 2)** Attach a copy of **your** driver license or state-issued identification card. (You may black out the picture.)

➔ **Step 3)** Sign the following Privacy Certification.

I certify that I have read the Driver's Privacy Protection Act (18 USC Sec 2721 et seq) and will comply fully with the terms of such law. I also certify that I shall not request or use any information provided by the Department of Motor Vehicles that is not specifically authorized by the Driver's Privacy Protection Act.

➧ _____ _____

Requester's Signature **(required)** Date

_____

Requester - *Print Name Here*

Mail your request to: NEW YORK STATE DEPARTMENT OF MOTOR VEHICLES
FREEDOM OF INFORMATION
6 EMPIRE STATE PLAZA, ROOM 435
ALBANY NY 12228

New York State Department of Motor Vehicles

FREEDOM OF INFORMATION REQUEST FORM

↓ *Requester, enter your Name and Address* ↓

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Daytime telephone number *(optional)* _____

PAYMENT METHOD ● DO NOT SEND CASH ●

☐ Exempt ☐ Check ☐ Money Order

☐ MasterCard ☐ Visa

☐ American Express ☐ Discover Card

Account Number _____

Expiration Date: _____

Authorized Signature ▶ _____

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➔ _____ _____
Requester's Signature **(required)** Date

_____
Requester - *Print Name Here*

Mail your request to: NEW YORK STATE DEPARTMENT OF MOTOR VEHICLES
FREEDOM OF INFORMATION
6 EMPIRE STATE PLAZA, ROOM 435
ALBANY NY 12228