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00:00:00,000 --> 00:00:20,290

Dreams and nightmares have long haunted the dark regions of the human mind.

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00:00:20,290 --> 00:00:28,141

Today, however, we are finding ways to solve the age-old riddle of our subconscious.

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00:00:28,141 --> 00:00:39,757

It may not be long before we can control and plan our own dreams.

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00:00:39,757 --> 00:00:44,884

Every night, when we surrender ourselves to sleep, we enter a dark continent,

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00:00:44,884 --> 00:00:50,411

the mysterious world of dreams and nightmares.

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00:00:50,411 --> 00:00:56,099

With us, we bring our strongest wishes and our deepest fears.

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00:00:56,099 --> 00:01:08,196

On the view screen of our mind, feelings are magically transformed into pictures.

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00:01:08,196 --> 00:01:21,173

If our visions are truly terrifying, we awake, still haunted, unsure whether the experience was dream or reality.

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00:01:21,173 --> 00:01:34,792

For many of us, the bad dreams, which we call nightmares, are the most vivid and most likely to be remembered.

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00:01:34,792 --> 00:01:42,723

When we awake, we may recall nothing or remember only fragments, but we all dream almost two hours every night.

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00:01:42,723 --> 00:01:47,129

Nearly five years of our lives are spent dreaming.

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00:01:47,129 --> 00:01:53,297

Since ancient times, people have known that their night lives had deep significance.

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00:01:53,297 --> 00:01:59,706

They have told each other their dreams and given them artistic expression.

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00:01:59,706 --> 00:02:11,802

All ages and cultures have recognized the bizarre imagery, romance, terror, and access to hidden truths of the dream state.

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00:02:11,882 --> 00:02:14,766

Today, interest in dreams is growing.

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00:02:14,766 --> 00:02:21,576

In dream laboratories around the world, the sleeping brain has become the object of scientific inquiry.

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00:02:21,576 --> 00:02:28,385

The studies at these modern research centers go far beyond mere speculation about the subconscious mind.

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00:02:28,385 --> 00:02:33,912

We are beginning to understand how and why we dream.

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00:02:33,912 --> 00:02:39,520

In a sleep lab, electrical sensors monitor the motion of each eye.

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00:02:39,600 --> 00:02:46,890

A chart simultaneously records eye movement, brain waves, pulse, and muscle activity.

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00:02:46,890 --> 00:02:51,376

Though our eyes are closed during sleep, they are not inactive.

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00:02:51,376 --> 00:02:55,942

At times, they dart about as if scanning a picture.

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00:02:55,942 --> 00:03:03,553

It is during these periods of rapid eye movement, or REM, that our fleeting dream life exists.

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00:03:03,553 --> 00:03:10,282

By charting brain waves and rapid eye movements, researchers have mapped out the stages of a night's sleep.

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00:03:10,282 --> 00:03:17,011

They have found a remarkable pattern, which we all repeat every night.

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00:03:17,011 --> 00:03:22,699

A young couple was photographed at 15-minute intervals through the night.

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00:03:22,699 --> 00:03:29,027

Like clockwork, the dreams come about every hour and a half.

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00:03:29,027 --> 00:03:33,514

Before and after each dream, we are likely to shift positions.

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00:03:33,514 --> 00:03:38,641

But during the dream itself, we lie still, as if paralyzed.

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00:03:38,641 --> 00:03:48,254

As the night wears on, the dreams grow longer and more mysterious, rich in symbolic imagery from our dim past.

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00:03:48,254 --> 00:03:55,223

So regular is this dream cycle that scientists believe dreaming is a built-in biological process.

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00:03:55,303 --> 00:04:00,110

They have even located the origin of this process within the brain.

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00:04:00,110 --> 00:04:07,480

On the underside of the brain is the brainstem, which controls unconscious functions such as sleep and waking.

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00:04:07,480 --> 00:04:12,286

Certain giant nerve cells in the brainstem trigger our dreams.

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00:04:12,286 --> 00:04:19,336

When these cells send their signals to higher parts of the brain, rapid eye movements begin.

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00:04:20,297 --> 00:04:30,311

At the Massachusetts Mental Health Center, Dr. Alan Hobson is one of the four most experts on dreaming in cats and humans.

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00:04:30,311 --> 00:04:38,322

This is the electrical activity of a single nerve cell in the brainstem of the cat during dreaming sleep.

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00:04:38,322 --> 00:04:43,449

On the upper trace, you see the individual signals of that cell.

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00:04:43,529 --> 00:04:50,739

And on the lower trace, you see the electrical activity in the visual system during a dreaming sleep episode.

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00:04:50,739 --> 00:04:58,029

By understanding the way that the nerve cells of the brain actually generate the dreaming sleep state,

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00:04:58,029 --> 00:05:05,799

we hope to be able to gain some insights as to how the dream itself is manufactured.

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00:05:05,799 --> 00:05:12,368

Dr. Hobson helped discover the random and irregular nature of the signals that triggered dreams and nightmares.

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00:05:13,490 --> 00:05:38,404

This finding could help explain the bizarre form of dreams, how they are created from bits and pieces of seemingly unrelated memory.

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00:05:39,285 --> 00:05:49,299

Although scientists are beginning to learn how dreams are caused in the brain, just why we dream remains mysterious.

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00:05:49,299 --> 00:05:57,309

In a sleep lab, a complete night's dreaming can be sampled, whether or not the subject is skilled at remembering dreams.

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00:05:57,309 --> 00:06:04,439

At Rush Presbyterian Hospital in Chicago, Dr. Rosalyn Cartwright is testing her theory of why we dream.

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00:06:04,439 --> 00:06:07,323

Her subjects are women suffering from depression.

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00:06:07,483 --> 00:06:20,221

We have two people sleeping here tonight who are wired up for recording their EEG, their brain waves, and their eye movements, so we'll know when they start to dream.

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00:06:20,221 --> 00:06:26,229

We're particularly interested in these women because both of them are undergoing stress.

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00:06:26,229 --> 00:06:34,240

One has just completed a divorce and the second one is making up her mind about divorcing her husband.

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00:06:34,801 --> 00:06:38,966

Dr. Cartwright is interested in the healing power of dreams.

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00:06:38,966 --> 00:06:45,215

By helping people reshape their dreams, she hopes to improve their waking lives.

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00:06:45,215 --> 00:06:56,270

I think we dream in order to keep a steady sense of ourselves, who we are in the world, gets kind of fragmented during the day,

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00:06:56,270 --> 00:07:00,596

we get diverse messages from other people about who we are.

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00:07:00,596 --> 00:07:11,330

I think we take all that information and program it through the night and reconcile it to our concept of ourselves so that we can get up and say,

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00:07:11,330 --> 00:07:15,176

I'm intact, I am who I am, and fight another day.

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00:07:16,858 --> 00:07:24,148

Dr. Cartwright and her assistant watch the chart recorders carefully, waiting for rapid eye movements to signal the start of a dream.

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00:07:24,148 --> 00:07:28,153

Okay, here she goes.

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00:07:28,153 --> 00:07:34,161

We've got a run period going. I knew she was about to begin.

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00:07:34,161 --> 00:07:38,167

Nancy, what was going through your mind just before it called you?

61

00:07:40,170 --> 00:07:48,181

There was an ant for whole cat beer.

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00:07:48,181 --> 00:08:12,213

And there was something, oh yeah, right before the beer ad, we were driving, yes, and oh yes, we seem to have gotten stuck or caught in traffic and we're wedged behind this fat car.

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00:08:12,213 --> 00:08:18,221

Then how did that fat cat, no, that whole cat beer ad come on?

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00:08:18,221 --> 00:08:28,235

It's like we're driving down the street and that's what we see in the window, you know, like people have pats, blue ribbon beer signs in their window.

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00:08:28,235 --> 00:08:32,241

They have whole cat beer.

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00:08:34,243 --> 00:08:36,246

And is that about it?

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00:08:36,246 --> 00:08:38,249

Yep.

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00:08:38,249 --> 00:08:40,251

Okay, Nancy, you can go on back to sleep.

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00:08:43,256 --> 00:08:45,258

What's the pole cat?

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00:08:45,258 --> 00:08:53,269

Well, last night I thought it was mountain lion, but that's not true. I know. It stinks is all I can remember.

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00:08:53,269 --> 00:08:56,273

That's for sure it stinks. Do you know what a pole cat is?

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00:08:56,273 --> 00:09:01,280

No, I really don't. They're in New England, I think, and that's all I can remember.

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00:09:01,280 --> 00:09:04,284

You've never heard that a skunk is called a pole cat?

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00:09:04,284 --> 00:09:06,287

No! Is that right?

75

00:09:06,287 --> 00:09:11,294

Yeah, I didn't know. No, I didn't know a skunk was a pole cat.

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00:09:11,294 --> 00:09:26,314

That pole cat, that beer drinking pole cat was very clearly a symbol for her lost husband, and it was the first sign that she's begun to be able to be angry at him rather than hurt and neglected and feeling sorry for herself.

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00:09:26,314 --> 00:09:35,326

That's a healthy kind of a dream. That's kind of a dream I would like to help more depressed women have to show a bit of anger and call them a stinker.

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00:09:35,326 --> 00:09:38,331

Go ahead and you'll feel better in the morning.

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00:09:39,332 --> 00:09:49,346

After 16 years, Frank has just lost his job. This recreation shows how his feelings of insecurity are reflected in his dreams.

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00:09:49,346 --> 00:09:55,354

For the last few nights, he's been the victim of painful, recurrent nightmares.

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00:09:59,359 --> 00:10:05,367

Frank, why don't you come to bed? I've got to get some sleep.

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00:10:05,367 --> 00:10:07,370

I think I'll read for a while.

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00:10:19,386 --> 00:10:23,392

Fearful of another nightmare, Frank avoids sleep as long as he can.

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00:10:35,408 --> 00:10:54,434

Frank experiences the odd sensation of both participating in his dream and being a spectator.

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00:10:54,434 --> 00:11:00,442

He jumbles up images from his past and confuses one time and place with another.

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00:11:01,444 --> 00:11:06,451

Finally, his deepest fears of rejection are acted out before him.

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00:11:07,452 --> 00:11:10,456

The dream is over.

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00:11:24,475 --> 00:11:30,483

Frank, Frank, Frank! It's only a dream. It's only a dream. It's alright.

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00:11:31,485 --> 00:11:38,494

It may be only a dream, but when nightmares this severe strike, the terror lingers on.

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00:11:38,494 --> 00:11:46,505

For these are symptoms of real trouble in our lives. They are warnings that we ignore and are peril.

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00:11:48,508 --> 00:11:55,517

In the nightmare state, feelings of helplessness and terror grip our minds with a strange power.

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00:11:55,517 --> 00:12:02,527

A form of paralysis based deep in the brain holds us immobile during the bad dream.

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00:12:02,527 --> 00:12:08,535

There is, however, a night experience still more fearful than ordinary nightmares.

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00:12:09,537 --> 00:12:18,549

At the State University in Hershey, Pennsylvania, brainwave electrodes and low-light cameras record the awesome phenomenon of night terrors.

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00:12:25,558 --> 00:12:31,567

These are people being treated for night terrors which are extremely rare in adults.

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00:12:31,567 --> 00:12:42,582

The precise cause of these attacks is unknown, but brainwave studies show that night terrors erupt suddenly from a deep stage of sleep when there are no rapid eye movements.

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00:12:43,583 --> 00:12:49,591

Frank, Frank, Frank!

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00:12:51,594 --> 00:12:56,601

Dr. Anthony Cales directs the Sleep Research and Treatment Center.

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00:12:56,601 --> 00:13:01,607

Night terrors are one of the most frightening experiences known to man.

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00:13:01,607 --> 00:13:07,616

If we try to get recall from night terror sufferers, most often they're amnesic for the event.

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00:13:07,616 --> 00:13:13,624

But when they do have recall, these generally relate to certain kinds of death themes.

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00:13:13,624 --> 00:13:21,635

That is, the individual is being crushed, the individual is suffocating, some kind of catastrophe is occurring.

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00:13:23,637 --> 00:13:28,644

As the victim's anxiety mounts, their pulse may double or triple.

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00:13:28,644 --> 00:13:34,652

After they awake, their terrified state may persist for several minutes.

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00:13:34,652 --> 00:13:41,662

It is as if some primeval fear response, present in us all, is uncontrollably triggered.

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00:13:44,666 --> 00:13:50,674

Since ancient times, nightmare images have been a source of wonder and a wellspring of creativity.

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00:13:52,677 --> 00:13:58,685

Before the invention of modern psychology, many people believe that nightmares were caused by indigestion.

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00:13:59,687 --> 00:14:07,698

Others thought that spirits, witches, vampires, devils, or mythological creatures such as the incubus were to blame.

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00:14:08,699 --> 00:14:13,706

Freud and his disciples explained the nightmare in terms of repressed sexual desires.

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00:14:14,707 --> 00:14:20,715

Today's psychologists take a broader view, recognizing that not all conflicts are purely sexual.

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00:14:20,715 --> 00:14:24,721

They associate some nightmares with traumatic events in our lives.

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00:14:24,721 --> 00:14:28,726

Other nightmares deal with long-term, unresolved conflicts.

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00:14:28,726 --> 00:14:35,736

They transform our most profound anxieties into intensely dramatic dream pictures.

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00:14:37,738 --> 00:14:41,744

Children's dream paintings reveal a common theme of attack by monsters.

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00:14:44,748 --> 00:14:46,751

Nightmares occur in all children.

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00:14:47,752 --> 00:14:55,763

The child is being asked to master the kinds of instinctual impulses and aggressive impulses that the child has.

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00:14:55,763 --> 00:15:01,771

But the child hasn't developed the kind of mastery to control these impulses fully.

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00:15:02,773 --> 00:15:07,779

And instead of saying, well, I'm very angry at my brother or my sister or I want to hit them,

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00:15:07,779 --> 00:15:11,785

the child may say, this monster is after me.

120

00:15:16,792 --> 00:15:21,798

The child is being asked to master the kinds of instinctual impulses that the child has.

121

00:15:24,803 --> 00:15:28,808

Mommy! Mommy! Mommy! Mommy!

122

00:15:28,808 --> 00:15:30,811

What happened to you?

123

00:15:30,811 --> 00:15:32,813

I had a bad dream.

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00:15:32,813 --> 00:15:34,816

What was your dream?

125

00:15:34,816 --> 00:15:36,819

A gorilla.

126

00:15:36,819 --> 00:15:40,824

I was running my bike and a gorilla was chasing me.

127

00:15:40,824 --> 00:15:48,835

And I wanted to jump down and try to eat me up and I was scared.

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00:15:48,835 --> 00:15:51,839

Wow, how are you feeling now?

129

00:15:51,839 --> 00:15:52,841

Scared.

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00:15:52,841 --> 00:15:54,843

Scared, huh?

131

00:15:55,845 --> 00:15:59,850

Actually, it's a time when they do need a certain kind of reassurance,

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00:15:59,850 --> 00:16:04,857

a certain kind of support from the parents before they fall asleep at night.

133

00:16:04,857 --> 00:16:06,860

And usually this is very, very sufficient.

134

00:16:06,860 --> 00:16:10,865

I'm going to put you back in bed and if that monster comes back,

135

00:16:10,865 --> 00:16:15,872

I want you to look him straight in the eye and tell him to go away.

136

00:16:15,872 --> 00:16:17,875

Okay?

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00:16:18,876 --> 00:16:20,879

Night night.

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00:16:20,879 --> 00:16:35,899

As in children's bad dreams, when adults have nightmares,

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00:16:35,899 --> 00:16:41,908

anxiety and aggression are transformed into fearful images and threatening events.

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00:16:41,908 --> 00:16:47,916

The unrecognizable figures we see are thought to represent parts of ourselves

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00:16:47,916 --> 00:16:54,925

that we are not yet in touch with and therefore fear.

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00:16:54,925 --> 00:16:59,932

There is no simple key to understanding and controlling our dreams.

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00:16:59,932 --> 00:17:03,938

There are mysteries that each of us has to work out for ourselves.

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00:17:03,938 --> 00:17:09,946

Over an 11-year period, therapist Christine Sanfilippo has recorded her dreams

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00:17:09,946 --> 00:17:14,953

and used them to plumb the depths of her subconscious.

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00:17:14,953 --> 00:17:20,961

For years, Christine had a recurrent nightmare in which she is chased by the ocean.

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00:17:20,961 --> 00:17:34,980

The dream is to take part in a dream circle therapy group.

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00:17:34,980 --> 00:17:40,988

Christine is trying to unravel and confront the powerful feelings behind her nightmare.

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00:17:40,988 --> 00:17:47,998

She hopes to re-experience the dream state and bring her dreams back to life.

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00:17:47,998 --> 00:17:53,004

Christine, I'd like you to lie down in the center with your head right here

151

00:17:53,004 --> 00:17:58,011

and take the position that you take in the dream when the ocean is coming over you.

152

00:17:58,011 --> 00:18:03,018

I want you to let this be the ocean rushing in on you.

153

00:18:03,018 --> 00:18:06,022

Can you tell us what you're feeling?

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00:18:06,022 --> 00:18:10,028

I feel very afraid and helpless.

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00:18:10,028 --> 00:18:15,034

I feel like the ocean is suffering.

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00:18:15,034 --> 00:18:21,043

I feel like the ocean is suffocating me and pressing down on me.

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00:18:21,043 --> 00:18:23,045

It's very powerful.

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00:18:23,045 --> 00:18:27,051

And I feel like I can't breathe. I have to resist.

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00:18:27,051 --> 00:18:32,058

I have to resist it as much as I can because it's too powerful.

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00:18:32,058 --> 00:18:38,066

I'm being overwhelmed. I'm losing myself.

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00:18:39,067 --> 00:18:46,077

I feel like I'm sinking down into the feeling.

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00:18:48,079 --> 00:18:52,085

By understanding and facing her ocean dream fears,

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00:18:52,085 --> 00:18:57,092

Christine comes to a new stage in her personal growth.

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00:18:57,092 --> 00:19:06,104

My dreams have changed as I have, dealing specifically with people more directly.

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00:19:06,104 --> 00:19:14,115

I've become much more spontaneous, more willing and able to relax, be more open, be more vulnerable,

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00:19:14,115 --> 00:19:17,119

get a lot closer to people.

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00:19:17,119 --> 00:19:24,129

Unraveling a dream is like unraveling a person. It's a very rewarding experience.

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00:19:24,129 --> 00:19:31,138

Beyond the working out of concrete personal problems, there is another dimension to the dream world.

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00:19:32,139 --> 00:19:41,152

The dream images created by the unconscious include certain symbols which Carl Jung called universal archetypes.

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00:19:41,152 --> 00:19:45,157

Of these symbols, the ocean is one of the most common.

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00:19:45,157 --> 00:19:52,167

Jung believed these symbols unite mankind in what he called the collective unconscious.

172

00:19:53,168 --> 00:19:59,176

Perhaps dream images exist in the structure of the brain.

173

00:19:59,176 --> 00:20:03,182

Or maybe it is only our common experience that produces them.

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00:20:03,182 --> 00:20:12,194

Whatever their origin, the symbols of our dreams serve to remind us of the infinite mystery that resides in the human mind.

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00:20:15,198 --> 00:20:20,205

The best way to remember and begin exploring dreams is to write them down in the morning.

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00:20:21,206 --> 00:20:27,215

With enough experience, it's actually possible to change the outcome of dreams and nightmares.

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00:20:27,215 --> 00:20:34,224

Dream experts suggest that before going to sleep, we should mentally prepare ourselves to confront our dream fears

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00:20:34,224 --> 00:20:38,230

and act vigorously to make wishes come true.

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00:20:38,230 --> 00:20:46,240

For those who attempt it, the voyage into full awareness of the dream world is an adventure beyond compare.

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00:20:46,240 --> 00:20:50,246

Good night and pleasant dreams.

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00:21:17,283 --> 00:21:21,288

Tonight on the History Channel.

182

00:21:21,288 --> 00:21:24,292

Her legend spans three decades in two wars.

183

00:21:24,292 --> 00:21:27,296

She fought the battle for late-war Gulf that took the war to Japan.

184

00:21:27,296 --> 00:21:31,302

Fighting in kamikaze hotspots, she was the most hit carrier of the fleet.

185

00:21:31,302 --> 00:21:33,305

Battle scarred but never broken.

186

00:21:33,305 --> 00:21:37,310

The fighting eye, the story of the USS Intrepid as fleet week continues.

187

00:21:37,310 --> 00:21:40,314

Tonight at 8 on the History Channel.