

1

00:00:00,298 --> 00:00:10,301

This series presents information based in part on theory and conjecture.

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00:00:10,301 --> 00:00:17,063

The producer's purpose is to suggest some possible explanations, but not necessarily

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00:00:17,063 --> 00:00:21,304

the only ones to the mysteries we will examine.

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00:00:21,304 --> 00:00:23,305

Laughter.

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00:00:23,305 --> 00:00:30,307

One of the most familiar, yet least understood, of the body's responses.

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00:00:30,307 --> 00:00:33,308

Scientific examination reveals it to be a mystery.

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00:00:33,308 --> 00:00:37,309

Its role in human behavior unknown.

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00:00:37,309 --> 00:00:45,312

Recent evidence indicates that laughter may be linked somehow to our mysterious ability to heal ourselves.

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00:00:45,312 --> 00:00:48,312

Is laughter capable of keeping us well?

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00:00:48,312 --> 00:00:53,314

What occurs when a person laughs is a sudden mental explosion.

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00:00:53,314 --> 00:01:01,316

I'd rather hear you, Bill Allen's baseball scoop, scoop!

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00:01:01,316 --> 00:01:07,318

I would rather have a comedian with me when I'm feeling badly than a doctor.

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00:01:07,318 --> 00:01:09,319

What is the importance of laughter?

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00:01:09,319 --> 00:01:12,320

Could it be linked to survival itself?

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00:01:12,320 --> 00:01:17,321

Come with us now as we go in search of laugh therapy.

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00:01:18,321 --> 00:01:29,325

Music.

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00:01:29,325 --> 00:01:41,328

In India, a man's wrists are deeply burned, then smeared with a mustard paste as a therapy against an illness.

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00:01:41,328 --> 00:01:47,330

There's no rational explanation as to why that would work other than that the patient would believe that it would work.

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00:01:47,330 --> 00:01:54,332

Dr. Ari Keene has traveled the world in search of an understanding of therapeutic practices.

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00:01:54,332 --> 00:02:01,334

By simply believing in the therapy, this man's mind helps him to heal.

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00:02:01,334 --> 00:02:07,336

Can we ascribe healing powers such as these to other forms of therapy?

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00:02:07,336 --> 00:02:15,339

I think what's exciting about what we've been learning from studying the primitives is that the same time that we're making great advances in molecular biology,

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00:02:15,339 --> 00:02:23,341

we're also becoming aware of the tremendous power of the mind, the power of positive thinking, the power of faith.

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00:02:23,341 --> 00:02:32,344

All of which, when integrated, will open up a new era in the treatment of psychiatric as well as physical illness.

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00:02:33,344 --> 00:02:42,347

From around the world, we learn of strange therapies that seem to be impossible, yet they do work.

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00:02:42,347 --> 00:02:54,350

Some researchers in our own country have invented unusual tools in an attempt to heal the sick.

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00:02:55,351 --> 00:03:05,354

This strange device cured many people at the turn of the century, yet it actually does nothing but emit a blue spark.

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00:03:05,354 --> 00:03:14,356

When a treatment has no explainable medical basis for affecting health, but somehow does, it is called a placebo.

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00:03:14,356 --> 00:03:22,359

Dr. A.K. Shapiro has spent the last 20 years investigating the so-called placebo effect.

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00:03:23,359 --> 00:03:35,363

A placebo is probably connected and related to the will to live, the will to get better.

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00:03:35,363 --> 00:03:41,365

It's probably a built-in genetic mechanism that helped mankind survive.

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00:03:41,365 --> 00:03:49,367

It's omnipresent, everybody's subject to it. It's very difficult to recognize. It's probably universal.

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00:03:50,367 --> 00:03:58,370

Dr. Shapiro has assembled a collection of placebos that rivals that of the Smithsonian.

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00:03:58,370 --> 00:04:03,371

Some of the items that have been used over the years stretch the imagination.

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00:04:03,371 --> 00:04:10,373

The most magnificent placebo in the world of history, without qualification, is the unicorn one.

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00:04:10,373 --> 00:04:16,375

And the reason for that is that it was the most expensive treatment in the whole history of medicine.

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00:04:16,375 --> 00:04:24,378

During the Middle Ages, people paid \$500,000 for this unicorn horn because it cured everything.

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00:04:24,378 --> 00:04:32,380

It was the most excellent aphrodisiac. And of course, only the royalty could afford to buy such a thing.

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00:04:32,380 --> 00:04:41,383

The people also had a treatment which involved bathing the unicorn in water, and they drank unicorn water for pennies.

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00:04:42,383 --> 00:04:48,385

Here is a powdered unicorn horn, which I bought in Japan in a herbalist shop.

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00:04:52,386 --> 00:05:00,388

Here's an aphrodisiac recommended by Maimonides, which consists of a hollowed-out carrot into which you urinate.

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00:05:00,388 --> 00:05:07,390

It's a cure for impotence, which you wrote about in his volume of work on the treatment of sexual disorders.

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00:05:11,392 --> 00:05:20,394

Here's a Hyrudo-Medicinalis, that's a leech, which were extensively used in treatment to again withdraw the bad from the inside.

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00:05:20,394 --> 00:05:24,396

These were all placebos used in the past.

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00:05:24,396 --> 00:05:30,397

We asked Dr. Shapiro whether using laughter could be a placebo therapy.

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00:05:30,397 --> 00:05:41,401

It is possible that laughter, like anything else, can be a placebo for the person who would respond to laughter therapeutically.

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00:05:41,401 --> 00:05:45,402

However, for other people, it may not be a placebo at all.

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00:05:45,402 --> 00:05:53,404

In fact, for some people, they may get uptight about that and be upset about it and feel worse or have a negative placebo effect.

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00:05:54,405 --> 00:06:02,407

Without a placebo to help it along, can our mind cure illness?

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00:06:05,408 --> 00:06:14,411

At the Lafayette Clinic in Detroit, a woman learns to control body functions that are normally beyond her control by a therapy called biofeedback.

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00:06:15,411 --> 00:06:26,414

Sensitive monitoring equipment provides a signal or feedback from her body's responses, enabling her to reverse the symptoms of a painful condition known as Rayno's disease.

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00:06:28,415 --> 00:06:33,416

They would get, they start to get white at fingertips and they go all the way at the knuckles.

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00:06:33,416 --> 00:06:36,417

Then they would get like a brilliant red.

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00:06:36,417 --> 00:06:41,419

Then they would turn a purplish color, which is really scary.

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00:06:41,419 --> 00:06:45,420

And that's when the numbness would set in and they would, well, they looked ugly.

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00:06:45,420 --> 00:06:50,422

Project director Dr. Robert Friedman explains how biofeedback works.

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00:06:50,422 --> 00:07:00,425

Biofeedback involves electronically monitoring and feeding back to the patient or subject information about a particular physiological function,

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00:07:00,425 --> 00:07:09,427

so that the patient hopefully can eventually learn to bring that function under his own control, eventually without the use of the machinery.

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00:07:09,427 --> 00:07:17,430

Our work with biofeedback in Rayno's disease tells us that at least in some cases it's possible for people to control their physiological processes

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00:07:17,430 --> 00:07:21,431

and thereby abort or turn around certain disease processes.

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00:07:21,431 --> 00:07:32,434

Whether or not this is merely due to a placebo effect or whether it's due to some true intrinsic effects of biofeedback really remains to be determined by future research.

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00:07:33,434 --> 00:07:42,437

Whether a placebo or not, this woman is using a form of therapy that allows her to use her mind to

become well.

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00:07:43,437 --> 00:07:49,439

But if burning wrists and electronics can be therapies, what else might work?

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00:07:54,441 --> 00:07:58,442

This man is author and philosopher Norman Cousins.

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00:07:58,442 --> 00:08:05,444

For him, laughter has a special value, for it may have played a key role in saving his life.

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00:08:06,444 --> 00:08:14,447

After contracting a form of collagen disease he was told was fatal, he found himself weakened but unwilling to die.

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00:08:14,447 --> 00:08:22,449

Unable to accept either the diagnosis or hospital environment, he checked into a hotel and began a radical therapy,

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00:08:23,450 --> 00:08:28,451

large amounts of certain vitamins and regular doses of laughter.

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00:08:29,451 --> 00:08:39,454

At the time we carried out specific medical tests to find out whether there was any basis for the belief that laughter was therapeutic.

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00:08:40,455 --> 00:08:47,457

And we discovered there was and that the experience I had which was that,

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00:08:47,457 --> 00:09:01,461

laughed a free, tended to free my body to some extent of pain and would give me two hours of pain free and also pill free sleep.

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00:09:01,461 --> 00:09:05,462

This was corroborated by the test.

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00:09:06,462 --> 00:09:13,465

If laughter and positive emotions can physiologically affect us, the changes should be measurable.

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00:09:13,465 --> 00:09:19,466

Is it possible to scientifically record the healing power of laughter?

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00:09:21,467 --> 00:09:27,469

Primates seem to share an ability to respond to tickling in a way that resembles laughter.

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00:09:27,469 --> 00:09:33,471

What is not clear is the importance of laughter to either these orangutans or man.

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00:09:33,471 --> 00:09:39,472

Is there a primitive and instinctual basis for laughing? If so, why?

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00:09:43,474 --> 00:09:49,475

At Stanford University psychiatrist Dr. William Fry takes part in a unique study.

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00:09:49,475 --> 00:09:55,477

He is wired to monitor his body's vital physiology while experiencing sustained laughter.

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00:09:56,478 --> 00:10:02,479

The primary study that we are doing this procedure here, putting the cannula into my artery,

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00:10:02,479 --> 00:10:08,481

is to make a direct continuous study of the effect of laughter on blood pressure.

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00:10:08,481 --> 00:10:18,484

There are also these electrodes on my chest which will give us readings on the heart rate and the characteristics of the heart action.

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00:10:18,484 --> 00:10:21,485

In other words, what is called the electrocardiogram.

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00:10:25,486 --> 00:10:29,487

Will research reveal that laughter is the best medicine?

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00:10:47,493 --> 00:10:51,494

There's no question about in my mind that laughter is good for you.

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00:10:51,494 --> 00:10:58,496

I think that it's good for people in a number of different ways having to do with this matter of the stimulation of various bodily processes.

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00:10:58,496 --> 00:11:04,498

We can see in the blood pressure activity here that there's a stimulation of blood pressure

responses.

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00:11:04,498 --> 00:11:09,500

There's also an increase in the heart rate that takes place that's been demonstrated in other studies.

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00:11:09,500 --> 00:11:13,501

We also know that there's quite a bit of muscular activity that accompanies laughter.

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00:11:13,501 --> 00:11:18,502

You can just look at me and you can see how muscle groups all over my body are active.

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00:11:18,502 --> 00:11:23,504

The ones you can see in outward activity would be the diaphragm and my abdominal muscles,

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00:11:23,504 --> 00:11:26,505

but I can assure you that they were very active too.

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00:11:26,505 --> 00:11:29,506

So I got a very good exercise while I'm laughing.

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00:11:33,507 --> 00:11:42,509

I'm going to expect that this will tell us some very important things about the response of blood pressure to laughter in general, not just with myself.

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00:11:42,509 --> 00:11:46,511

It's an area of science that hasn't been explored before.

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00:11:46,511 --> 00:11:56,514

The whole area of the physical effects of humor and laughter on the body is one that's relatively ignored.

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00:12:00,515 --> 00:12:02,515

His laughter contagious.

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00:12:02,515 --> 00:12:04,516

Well, let's find out.

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00:12:06,517 --> 00:12:08,517

Performer Carl Reiner.

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00:12:16,520 --> 00:12:18,520

Ha ha ha!

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00:12:23,522 --> 00:12:24,522

I don't know.

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00:12:26,523 --> 00:12:28,523

Television star Steve Allen.

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00:12:32,525 --> 00:12:34,525

All right, here we go.

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00:12:34,525 --> 00:12:41,527

I'm only in the script where this good a far.

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00:12:48,809 --> 00:12:52,711

The annual spring training warm up. The big league teams are all in the spring training

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00:12:52,711 --> 00:12:54,411

headquarters around the country.

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00:12:54,411 --> 00:12:56,532

What's happening?

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00:12:56,532 --> 00:13:02,534

And what a joke does, at least many jokes do, they derail the logical train of thought.

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00:13:02,534 --> 00:13:06,375

You think you're going to a certain point and then you're surprised.

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00:13:06,375 --> 00:13:13,377

And I think this leads to perhaps some physical, literal spark in the electricity of the brain.

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00:13:13,497 --> 00:13:20,499

And for reasons not yet clear, this produces the physical response of pleasant surprise

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00:13:21,579 --> 00:13:26,021

and laughter. We go ha ha ha and the muscles go boom boom boom boom boom boom boom boom

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00:13:26,021 --> 00:13:26,061

that sort of thing.

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00:13:26,061 --> 00:13:30,702

When you're unhappy, juices flow that make you feel bad and you feel things you're having.

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00:13:30,702 --> 00:13:35,784

You feel a disintegration inside the body. When you're feeling badly and crying, there's

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00:13:35,784 --> 00:13:41,665

tensions and you know that your organs are reacting to it. They must be. And when you're

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00:13:41,665 --> 00:13:46,787

laughing, you think of nothing. You feel happy. You feel good. You feel good.

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00:13:46,787 --> 00:13:54,789

There's been a notion that I laughed my way out of a serious illness. Not quite true.

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00:13:54,789 --> 00:14:01,791

Laughter is a good headline. But the important thing is that I try to employ all the positive

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00:14:03,072 --> 00:14:10,074

emotions. Love, hope, faith. Will to live laughter. Laughter was important to be sure because

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00:14:12,395 --> 00:14:19,397

laughter helps to oxygenate the blood. It enhances respiration. And some medical researchers

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00:14:20,397 --> 00:14:27,399

believe that it combats toxicity. So laughter is important. But it would be a mistake to

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00:14:27,399 --> 00:14:32,401

think that that is the only positive emotion that was put to work.

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00:14:32,401 --> 00:14:37,282

You laugh, laugh. Well, happy people live longer. There's no doubt about it.

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00:14:37,282 --> 00:14:43,644

At Children's Orthopedic Hospital in Los Angeles, stuntman Red Horton steps into a classic comic

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00:14:43,644 --> 00:14:49,486

role. They're doing a gig like that. It's of children especially because it's so hard

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00:14:49,486 --> 00:14:54,287

to hold attention. It's really rewarding to feel that.

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00:14:54,287 --> 00:15:01,289

He believes that a clown is a healer and that laughter is his medicine.

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00:15:01,289 --> 00:15:08,291

Hello? Hello? It's for you. Washington. Hello? It's the president. Hello? No,

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00:15:19,295 --> 00:15:26,297

still Egypt. Hello? Are you there?

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00:15:27,297 --> 00:15:33,299

When I can get a child to laugh, to forget about the pain that he's in right at that

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00:15:33,299 --> 00:15:40,301

moment, it makes me really feel great inside and makes me feel tremendous. Makes me want

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00:15:40,301 --> 00:15:44,302

to stay there as long as I can just to keep them laughing.

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00:15:44,302 --> 00:15:51,304

You ready? Here we go. You're going to balance this on my head, okay? You ready? How's that?

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00:15:52,305 --> 00:15:55,306

How's that?

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00:15:55,306 --> 00:16:02,308

What are you doing? What are you doing?

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00:16:15,312 --> 00:16:22,314

I see myself in a role that has been carried on for centuries between clowns, Luke Jacobs,

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00:16:23,314 --> 00:16:29,316

all the way back to the court gestures. I see myself trying to make people in general

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00:16:29,316 --> 00:16:36,318

a whole new outlook in life. Something with a little humor, something to laugh at, something

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00:16:36,318 --> 00:16:42,320

to feel good about, to feel good about living.

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00:16:42,320 --> 00:16:49,322

I like to laugh because when you're hurt or your leg is uncomfortable, when you laugh,

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00:16:49,322 --> 00:16:56,324

it makes it so you forget what the pain is. There's no hurting. You just laugh. It makes

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00:16:56,324 --> 00:17:00,325

the pain go away because you just forget all about the pain.

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00:17:00,325 --> 00:17:05,327

But not all pain is physical, and that's when laughter heals best.

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00:17:05,327 --> 00:17:10,328

I will publish right now to bring the stage at the comedy store, one of our regular performers.

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00:17:10,328 --> 00:17:16,330

She's a very special lady. She's a very special lady. She's a very special lady. She's a

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00:17:16,330 --> 00:17:21,332

very special lady. Welcome right now, Jerry Jewel.

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00:17:21,332 --> 00:17:26,333

I couldn't ask for a better reception.

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00:17:26,333 --> 00:17:31,335

Yeah, how are we organized? Yeah, I can't lie to you people.

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00:17:31,335 --> 00:17:34,335

I got cerebral palsy.

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00:17:34,335 --> 00:17:41,338

I knew that I had cerebral palsy when I was just a little kid, and I always used to admire

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00:17:42,338 --> 00:17:47,339

the clowns and the circuses and stuff like that. And I always used to think that if they

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00:17:47,339 --> 00:17:54,341

put me in a clown costume, nobody would ever know I had CP. You know, they always walk funny.

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00:17:54,341 --> 00:18:00,343

But I understand, you know, I'm not insensitive, and I understand that we're brought up in a society

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00:18:00,343 --> 00:18:07,345

where we're taught not to stare or laugh at handicapped people. Well, tonight I'm going to break all those rules.

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00:18:08,346 --> 00:18:12,347

And I'm going to laugh at Kevin and Carter.

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00:18:16,348 --> 00:18:26,351

Laughter is a strength. When you're a handicapped child, you get a lot of abuse from kids when you're little.

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00:18:26,351 --> 00:18:35,354

And I had to sustain a lot of that. And I learned to laugh at myself because I was a little

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00:18:36,354 --> 00:18:42,356

because either that or I was going to be humiliated. You see?

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00:18:42,356 --> 00:18:48,358

You know, I do impressions. Are you ready for an impression?

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00:18:48,358 --> 00:18:55,360

I can do anybody with cerebral palsy. No, I can't.

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00:18:55,360 --> 00:19:02,362

Okay. This is my impression of a Q-tip.

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00:19:02,362 --> 00:19:07,363

Laughter and applause

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00:19:07,363 --> 00:19:14,366

What goes on between me and my audience is that there's a lot of love going back and forth.

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00:19:14,366 --> 00:19:18,367

It's like I'm giving them love and they're giving me love and it's going back and forth.

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00:19:18,367 --> 00:19:27,369

It's vibes. Very strong vibes. I think the most beautiful part of being a comic is being successful

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00:19:27,369 --> 00:19:34,372

with a set and walking off the stage and seeing everybody smile. It's so neat.

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00:19:34,372 --> 00:19:38,373

And I love it. It just makes me feel so great.

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00:19:46,375 --> 00:19:54,378

Jerry Jewel knows what laughter can do. She has found a balm for the spirit and a world of love and acceptance

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00:19:54,378 --> 00:19:57,379

because of a mystery called laughter.

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00:19:57,379 --> 00:20:02,380

We're very hopeful that these pioneer studies will make an important contribution to the future.

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00:20:02,380 --> 00:20:08,382

Perhaps stimulating further studies in the future, perhaps providing some information that will contribute to

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00:20:08,382 --> 00:20:16,384

an understanding of human activities, human physiology, and perhaps even human disease in the future.

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00:20:17,385 --> 00:20:41,392

Laughter

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00:20:41,392 --> 00:20:50,394

Is it possible that clowns and comedians through the ages have touched something we instinctively recognize is vital to our well-being?

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00:20:50,394 --> 00:20:58,397

Can it be that Norman Cousins's story holds the key to medical insights yet to be explored?

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00:20:58,397 --> 00:21:06,399

Insights that are linked to our mysterious ability to heal, an ability that crosses both cultures and time.

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00:21:07,400 --> 00:21:10,400

Laughter

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00:21:10,400 --> 00:21:16,402

It's obvious that laughter is important to us for our mental well-being. That's indisputable.

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00:21:16,402 --> 00:21:20,404

Is it also possible that it actually helps to keep us well physically?

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00:21:20,404 --> 00:21:26,405

We do know it feels good, but we don't know why. Will we someday?

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00:21:26,405 --> 00:21:33,407

Perhaps future research will more clearly define the positive physical effects of laughter.

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00:21:33,407 --> 00:21:40,410

Until then, we can certainly continue enjoying its obvious psychological benefits.

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00:21:40,410 --> 00:22:09,418

Music

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00:22:10,419 --> 00:22:15,420

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