

1
00:00:00,000 --> 00:00:03,569
the manufacturers of this machine don't

2
00:00:01,740 --> 00:00:06,028
call it that and that the scientific

3
00:00:03,569 --> 00:00:07,500
director of the astute here in the

4
00:00:06,028 --> 00:00:10,980
United States hasn't call it that but

5
00:00:07,500 --> 00:00:14,519
they call it the infra tonic QGM four

6
00:00:10,980 --> 00:00:16,230
point oh and this is listed inside the

7
00:00:14,519 --> 00:00:18,210
fda's of therapeutic massager and the

8
00:00:16,230 --> 00:00:21,480
origins of this the development of this

9
00:00:18,210 --> 00:00:23,730
machine started in China with

10
00:00:21,480 --> 00:00:24,689
experiments I described before where

11
00:00:23,730 --> 00:00:28,469
they were looking at these known

12
00:00:24,689 --> 00:00:30,179
physical these new energies and so the

13
00:00:28,469 --> 00:00:32,609
infrasound that was being emitted by the

14
00:00:30,178 --> 00:00:34,439
china the chinese chicken practitioners

15
00:00:32,609 --> 00:00:36,238
had a particular characteristic that

16
00:00:34,439 --> 00:00:38,670
didn't look like the normal for someone

17
00:00:36,238 --> 00:00:42,030
coming out of humans so they made a

18
00:00:38,670 --> 00:00:44,489
device that basically mimics the

19
00:00:42,030 --> 00:00:46,950
infrasonic emissions coming out of chi

20
00:00:44,488 --> 00:00:49,919
gong practitioner doing external chico

21
00:00:46,950 --> 00:00:51,829
and this device is now commercially

22
00:00:49,920 --> 00:00:54,090
available as i as a therapeutic device

23
00:00:51,829 --> 00:00:56,280
the you know the interesting thing is

24
00:00:54,090 --> 00:00:59,789
that it's has been used mainly for

25
00:00:56,280 --> 00:01:02,850
horses and exit they've actually done

26
00:00:59,789 --> 00:01:04,829
some research on that the equine version

27
00:01:02,850 --> 00:01:08,189
and the human version look quite a bit

28
00:01:04,829 --> 00:01:10,228
alike and they and but they are all

29

00:01:08,188 --> 00:01:12,719
based on the same concept and here's a

30
00:01:10,228 --> 00:01:15,900
transducer head would be emitting

31
00:01:12,719 --> 00:01:18,810
infrasound and it's used quite a bit for

32
00:01:15,900 --> 00:01:21,600
joints based on the work the experience

33
00:01:18,810 --> 00:01:23,579
with horses so let's briefly look at one

34
00:01:21,599 --> 00:01:26,699
of those horse studies with the standard

35
00:01:23,579 --> 00:01:29,039
back horses so they had some functional

36
00:01:26,700 --> 00:01:30,900
data and that was it horses out with

37
00:01:29,040 --> 00:01:32,368
doing your training it would be a lot of

38
00:01:30,900 --> 00:01:34,320
stress the joints they would treat the

39
00:01:32,368 --> 00:01:37,739
joints to basically reduce inflammation

40
00:01:34,319 --> 00:01:39,929
and we accelerate the healing process

41
00:01:37,739 --> 00:01:42,539
and they found functionally that the

42
00:01:39,930 --> 00:01:46,979
horses could run faster and we're very

43
00:01:42,540 --> 00:01:50,540

very pleased with his results some of

44

00:01:46,978 --> 00:01:54,000

the actual experiments were focused on

45

00:01:50,540 --> 00:01:58,180

hyaluronic acid sorry about that very

46

00:01:54,000 --> 00:01:59,920

difficult name of a molecule this is

47

00:01:58,180 --> 00:02:03,550

an important component of extracellular

48

00:01:59,920 --> 00:02:07,060

matrix it's a mediator of inflammation

49

00:02:03,549 --> 00:02:09,280

and so there they've got very clean data

50

00:02:07,060 --> 00:02:11,170

working with horses showing that

51

00:02:09,280 --> 00:02:14,349

influence of this infrasonic generator

52

00:02:11,169 --> 00:02:18,789

to change levels of hyaluronic acid in

53

00:02:14,349 --> 00:02:21,009

the horses so and because it's important

54

00:02:18,789 --> 00:02:23,500

extracellular matrix component this led

55

00:02:21,009 --> 00:02:27,579

us to the hypothesis we want to look at

56

00:02:23,500 --> 00:02:29,139

this in an oncology model we came up

57

00:02:27,580 --> 00:02:32,170

with the idea that it would influence

58
00:02:29,139 --> 00:02:35,079
the membrane dynamics so we had these

59
00:02:32,169 --> 00:02:36,549
two hypotheses first one was that

60
00:02:35,080 --> 00:02:39,100
infrasound is going to increase the

61
00:02:36,550 --> 00:02:42,250
membrane permeability of cancer cells

62
00:02:39,099 --> 00:02:45,069
and that this increased permeability

63
00:02:42,250 --> 00:02:47,650
would allow the chemotherapy to get into

64
00:02:45,069 --> 00:02:48,939
cancer cells more readily and this is

65
00:02:47,650 --> 00:02:50,830
really the definition of chemo

66
00:02:48,939 --> 00:02:56,500
sensitization and allow the chemotherapy

67
00:02:50,830 --> 00:02:58,150
to work better so my laboratory focuses

68
00:02:56,500 --> 00:02:59,409
on brain tumors so this is the model

69
00:02:58,150 --> 00:03:03,459
that we were looking at it specifically

70
00:02:59,409 --> 00:03:06,370
glioblastoma multiforme a orgy p.m. and

71
00:03:03,459 --> 00:03:09,189
so now you can see why din leading up to

72

00:03:06,370 --> 00:03:13,980

the penetrative capacity of ever sound

73

00:03:09,189 --> 00:03:13,979

because we have this skull bone to