Station Houston space grant 24 Satoshi

are you ready for the event that's

affirmative I am ready for the event

copy that and scuba Space Center this is

Houston please call station for a voice

check station this is Chiaki vukai fluid

scuba space center for Jackson

educational event how do you read me I

Jackie I read you loud and clear focus

on your good square miles dr. McKay I

can hear you very well oh hello dr. soo

talk thank you very much dr. Cole I

think you can hear the cluch serve

everyone here at the Tsukuba Space
Center we have a lot of people who are involved in health activity ten organizations actually and everyone very much looking forward to hearing hear from you they're very much interested in your activity and your health promotion activity in space and they have a lot of questions to ask now we would like to start with the first group they are from Allah cover for prevention exercise group solidify sony arakawa hold on tight that I so thinking again they are on a cover for prevention exercise good fall fishing vida i am one of the
leaders of erika for prevention exercise

good i am takahashi alcohol in our area

we promoting the leaders to X promote

the full prevention exercise that would

need sir can't we are getting result

from activity now I would like to ask

you this question

to you are visual have bone fractures

happen in space and are there any

differences in hearing of bone fractures

or any other conditions about bone such

as process of aging that those are

muscles vai raja kata daughter Doughboy

bus thank you very much that's a
wonderful activity as you know in space

we do not have great gravity so our bones deteriorate but what's good about the space is that we do not need to walk so if we just pushed a wall we can just move around but in order to prevent weakening of bones we do exercise like push up using barbells or squads and in those activities we may tend to have injuries the i actually have never heard of anyone who had faster in space so to be frank guided at all what will be the heating with the bones but when I think about the condition of recovery or fracture the fractured bone have to be
in right position and blood saw has to

be right and no force is applied that

those bones do not go apart so when you

think about the in space we do not need
to walk so it can be still so we may

have advantage there but we also how to

think think about the cells that
develops bones and also destroys so so

that kind of very detailed genetic level

research would be needed thank you very

much now our next question please when

you too good evening mr. cushy back side

i am from wish she could city active

exercise promoter and it goes sasaki
00:04:21,750 --> 00:04:26,949
and probably this is the silliest

00:04:23,978 --> 00:04:29,050
question that I'm going to ask today I

00:04:26,949 --> 00:04:33,699
would like to ask about the disease

00:04:29,050 --> 00:04:38,129
under stress so I would think that your

00:04:33,699 --> 00:04:42,310
life there is in very confined space and

00:04:38,129 --> 00:04:44,139
and you're living in zero gravity so I

00:04:42,310 --> 00:04:50,009
will assume that you would be under

00:04:44,139 --> 00:04:52,060
stress so how do you manage your stress

00:04:50,009 --> 00:04:53,590
if you could share with us your

00:04:52,060 --> 00:04:59,649
experience that would be very helpful

00:04:53,589 --> 00:05:01,689
thank you it don't the one-eyes you're

00:04:59,649 --> 00:05:04,959
someone that or more must I don't just

00:05:01,689 --> 00:05:06,848
say just it well that's not true this is

00:05:04,959 --> 00:05:11,469
not the city question at all it's very
good question in reality in space

station it is like you are in your camping out with your best colleague so

we are not too much under stress however if I may say exercising or discuss

having good talk with the colleague and look out from the window and see the earth and take pictures and listen to music so those are what I do if I feel stressed thank you very much for good question have it would you are now we have a mayor of a jihad ah so I may have a super Bannister mr. ed had our mayor of took over the food group our city and
I'm also representative at Tsukuba a

great exercise class another layer I am

very happy that Dr. Kawa is doing so

well we are very proud of your activity

and especially space development and

scientific results and also very vicious

experience of doctor who do cover would

be utilized in our future so I hold a

very high expectation of your work so my

question is as a strategy to take action

for aging society

also our jury is very important and so

in order to make a good society where a

jury can live healthily I wonder how

your activities or experiments would be
utilizing activity in it omoni start a

lot I think that I said thank you very

much for your wonderful questions I

would like to explain from two

perspectives one is if I take one

example right next to hear about three

meters away from the camera I we have

protein growth crystal growth

experimenting this is good environment

to grow crystal and this is the protein

that is supposed to cure cancer and our

colleague is going to go back to earth

with that result and by analyzing the

result that we would be able to see the
three-dimensional structure of the protein so this is going to be very effective yet way to develop a new medicine so that's one way to contribute to make the life on Earth better in the second also is utilizing own body as the subject of experiment for example taking medicine for osteoporosis in preventive manner got a book so we are subject to ourselves so that the set we thought were visualized and would be the preparation for the time when everyone anyone can go to at his face thank you very much for a good question thank you
very much next question please good

evening dr. Lu cover I am we are from Kawasaki and from cave r-ky and we have various departments in Hospital like those both the pedic sandals so dentist and we heard that there are similarities to aging of bones and influences that happened in space and what do you think is important to kill yourself amazing physically anything about your meals supplements training go mental things what actually I mean I saw no excuse Tiger died under scared of all they say it's not a well
probably I should learn from you but if

I may I would like to share what we are doing and we regarding meals we tried to have good balance and try to take as much business much possible with vegetables and fish and in space vitamin D is very important in on the ground vitamin D is activated when you're exposed to the Sun but that is difficult in this environment and that is why we take more vitamin D and we do exercise every day and we tried to make it not so monotonous to try to do things differently every day and also we tried to numerical the target that I comment
eight times you could do squats and by

looking at the variation you see that

you're improving thank you very much

your question thank you very much next

question please are your i am from

preventive medicine for archery

association i am masayoshi honda and we

are the group that promotes the

preventive measures and i am in charge

of oral care so i would like to ask

about the swallowing and on the ground

we have gravity to support us when we /

so without

port of gravity in space do you have
difficulty swallowing down food in space

and also do you feel any changes when you went up the space for the first time

compared to now such as choking or difference in swallowing down food I you got to taking a costume or are you at all was I bus hang any chance do I as well thank you very much for a very good the medical question regarding swallowing your volte actually as much smoother compared to what I had expected probably that's because of the liquid content when what exists as it is it I saw that I want to become globe but when
it is attached to some surface its

spread ok just like that third case that

when you have Kaleva that's food spread

so when the food is together with fluent

a liquid it's it goes very smoothly so

swelly lowing it's not so difficult that

when you take medicine and if you do

that take medicine with little water it

may sometimes we difficult so it's

actually fairly smooth as following it's

fairly smooth and regarding the change

of body developed bodies through it

shifted upwards so I was the authorities

limas had headache and a mood or even

0:12:22,590 --> 0:12:30,470
was new face at the very beginning but

00:12:26,399 --> 00:12:35,519
that I could got quite accustomed to the

00:12:30,470 --> 00:12:38,129
life here and so I do not feel so heavy

00:12:35,519 --> 00:12:42,299
arrow and i think that the my move face

00:12:38,129 --> 00:12:46,379
has improved a little bit i think i am

00:12:42,299 --> 00:12:51,689
from kobayashi I'm from k you fracture

00:12:46,379 --> 00:13:02,970
prevention medicine center using the and

00:12:51,690 --> 00:12:59,520
as curtain who looks at safety of the

00:12:56,879 --> 00:13:02,970
local community

00:12:59,519 --> 00:13:05,250
we do activity to promote help in the

00:13:02,970 --> 00:13:07,440
area and I'm include our multi Messiah

00:13:05,250 --> 00:13:09,120
so my question is it is difficult to

00:13:07,440 --> 00:13:11,250
work when you feel the pain in your

00:13:09,120 --> 00:13:13,049
knees and back and I would think it's

00:13:11,250 --> 00:13:15,000
difficult to develop your bones with
walking in his face do you have any advice to develop your bones without walking hi are you at all times I don't look guys cause you know go since you got a deceptively thank you very much for a question so you're from the same area as dr. Makai is from and we think it's rather difficult you know to strengthen your both bones without walking so some in one way or the other you have to stimulate it must assume we're so when you have pain and needs or bags it has to be you have to continue moving even if it is in a small manner
and even in space we try to continue our exercise with less load compared to usual thank you very much next question please Google a good evening dr. Farooq cover i am from other a locomotive syndrome research center we had a group of orthopaedics and we focus on the importance of exercise for elderly people we felt very excess lectures and so on so my question is since lower legs get weaker slowly because of aging and lots of exercise it's hard to feel the model of the derivation of ourselves so that progress very slow slowly but in
your case do you feel any differences

with the loss of bone mass and muscle

that takes place so dramatically in case

of space what is it the glove

I must consider looking no go ahead to

go to the koi go to the soda yes it is

scary that you lose your muscle and bone

mass without realizing in our case we

are exercising we do not feel that we

are losing our mass muscle and we using

our exercise machine and squatting and

amazing barbells and so we are

maintaining or actually increasing the

muscle but the one thing that's
important i think is the new met you

00:15:41,700 --> 00:15:47,790
look at the numbers numeric oh how many

00:15:44,460 --> 00:15:51,470
times you push up what happened what's

00:15:47,789 --> 00:15:54,839
the weight fight so by keeping record

00:15:51,470 --> 00:15:59,190
numerically it would be becomes more

00:15:54,840 --> 00:16:01,410
easy to recognize the loss of muscles or

00:15:59,190 --> 00:16:08,880
bombers thank you very much for the

00:16:01,409 --> 00:16:14,759
question respected we of und a sendai

00:16:08,879 --> 00:16:19,169
miyagi i am kamiya my question is it is

00:16:14,759 --> 00:16:21,870
easy to get deep Rumble phlebitis in

00:16:19,169 --> 00:16:23,759
space compared to being a space to you

00:16:21,870 --> 00:16:26,399
train yourself for so there's Venus

00:16:23,759 --> 00:16:29,159
bombas and how does the milking action

00:16:26,399 --> 00:16:37,019
of beans change in zero gravity and any

00:16:29,159 --> 00:16:41,389
actions to prevent that is a multiple
286
00:16:37,019 --> 00:16:45,328
sorry about the famous sites that we go

287
00:16:41,389 --> 00:16:46,950
very medical question and thank you very

288
00:16:45,328 --> 00:16:52,078
much and I believe that a lot of people

289
00:16:46,950 --> 00:17:02,099
have difficulty in the disaster-hit area

290
00:16:52,078 --> 00:17:02,099
and in space so actually fortunately the

291
00:16:57,120 --> 00:17:04,068
we do not have so much of we are not

292
00:17:02,100 --> 00:17:08,068
sure whether we get that deep Rumble

293
00:17:04,068 --> 00:17:11,250
flight and bite us in space because we

294
00:17:08,068 --> 00:17:14,639
do not sit still and the blood vessel

295
00:17:11,250 --> 00:17:18,150
get worse if it doesn't happen so we do

296
00:17:14,640 --> 00:17:23,759
not do any exercise for that purpose and

297
00:17:18,150 --> 00:17:28,439
regarding mill king the venous blood

298
00:17:23,759 --> 00:17:31,259
comes back to the most devout heart so

299
00:17:28,439 --> 00:17:35,429
that movement takes place very similar
similar on ground so the zero-gravity environment is working positive way

actually but thank you very much for very scientific question thank you the Obama deserves a look i am from you are i believe from yokohama and i am from yokohama health promotion activity group and i am here matsuzawa my question is i've watched an astronaut eating Japanese food do they were king yo gotti good i heard that the strength to strength of masses can get so much no wine space and do you feel any changes in the power of chewing or do you fear

any text change of texture of food how much got a la gente de value thank you very much from my local town well I don't think that the chewing at power changes because the strength or the frequency of the chewing muscle does not change compared to the earth and be cutting a texture I personally do not feel any changes and even if I talk with my colleagues or a Vatican our store OD Mossad there may be some change in that tastes like people tend to like spicy food more on stage and many other people say that they do
not feel any change in case either or

00:18:58.500 --> 00:19:04.679
texture either but thank you very much

00:19:00.808 --> 00:19:09.509
for their a good question so this is

00:19:04.679 --> 00:19:12.750
going to be the last team we have from

00:19:09.509 --> 00:19:18.569
chuo gakuen welfare and medicine college

00:19:12.750 --> 00:19:22.130
my name is toda my question is if you

00:19:18.569 --> 00:19:26.159
are disabled and bedridden in the future

00:19:22.130 --> 00:19:29.640
which would you choose to live in space

00:19:26.160 --> 00:19:32.340
or here on earth and what what's the

00:19:29.640 --> 00:19:36.480
reason for that hi cutie oh no someone

00:19:32.339 --> 00:19:40.168
doesn't it and had it to you well that's

00:19:36.480 --> 00:19:43.829
an ultimate question well my answer to

00:19:40.169 --> 00:19:47.640
that is I prefer to live on earth the

00:19:43.829 --> 00:19:52.250
storage space is zero gravity I don't

00:19:47.640 --> 00:19:54.870
need to walk that you get in this
current environment it is like camping

out so you have to take care of yourself

well if you are to have welfare or the care facility here in space it might be

a bit good place to live but currently I prefer to live on earth because I would like to feel the forest or ocean around

so that would be the wonderful thing

about the earth but the view from the space is also very wonderful so it would be a very great if I can have both the

3d view of the s and then live on count

well dr. to color your answers were really enjoyable answers and thank you
very much and here with us a lot of
people who are working in healthcare and
injury care areas so would you like to
send message to them high 80 say it's
not the cigar Moustakas estate aqui mas
a la semana report name panocha taka
taka well my name whiskey gothic I
and we're not all these e i ge it is very
important that you have very high tech
consciousness about importance of health
and I believe that your mentor and my
condition would be more active and that
would make Japanese society more lively
and wonderful that in which i think is
very important and I hope that more people would have high consciousness and consciousness about the importance of health and your experience is the treasure for us so I hope that you will share communicate with younger generation as well and give guidance to the younger generation to thank you very much for this opportunity to communicate with you this computer thing then