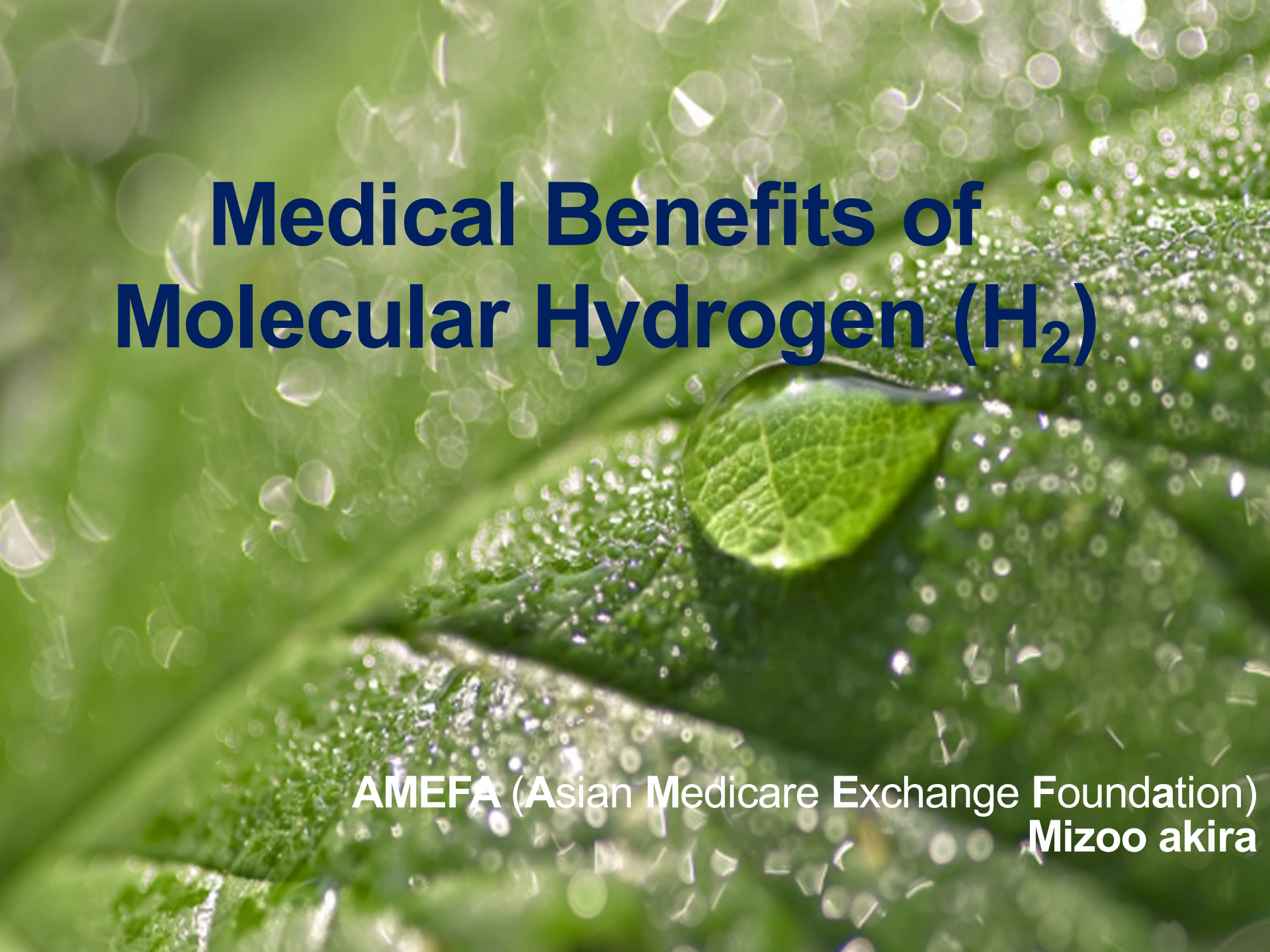


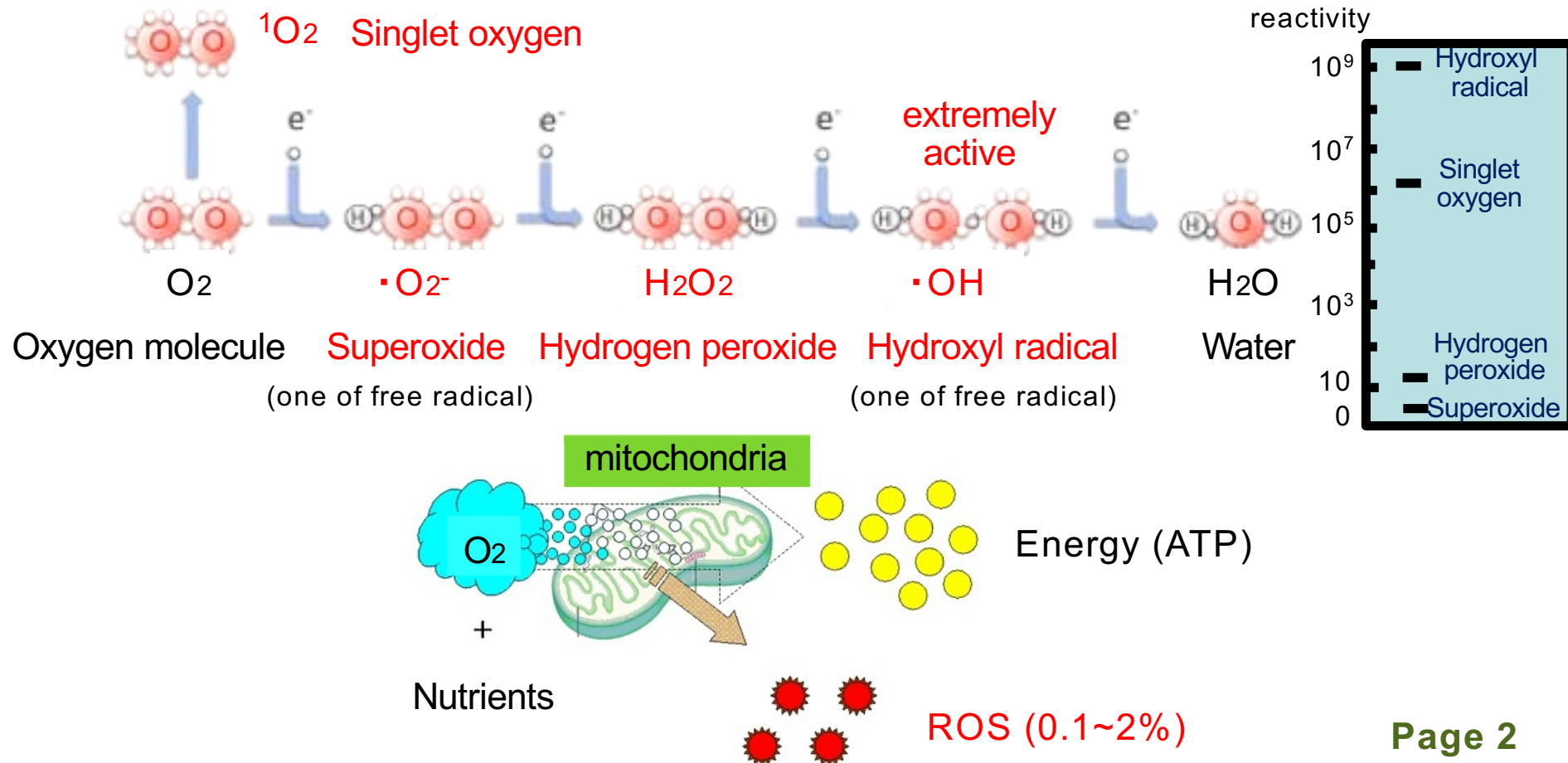


Medical Benefits of Molecular Hydrogen (H₂)

**AMEFA (Asian Medicare Exchange Foundation)
Mizoo akira**

What is ROS (Radical Oxygen Species) ?

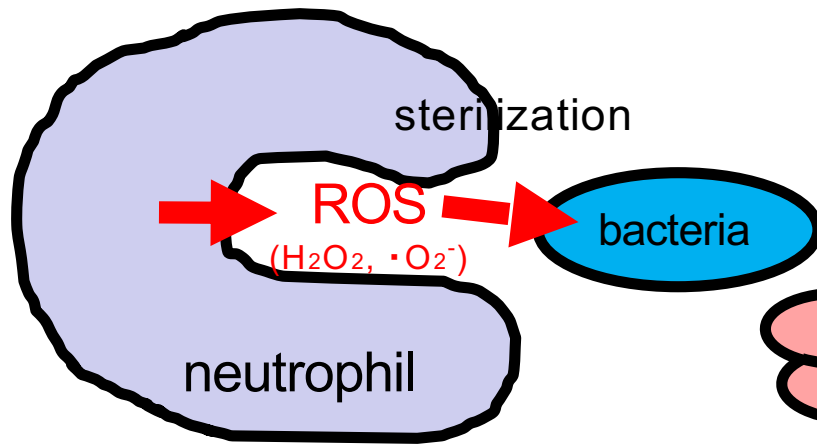
ROS (Radical Oxygen Species): $\cdot\text{O}_2^-$, H_2O_2 , $\cdot\text{OH}$, $^1\text{O}_2$



Beneficial function of ROS

~double-edged sword~

① Bactericidal effect



② Production of thyroid hormone

③ Signal transduction and Regulation of biological processes

ROS Antioxidant
Oxidation Antioxidant effect

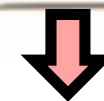


well balanced



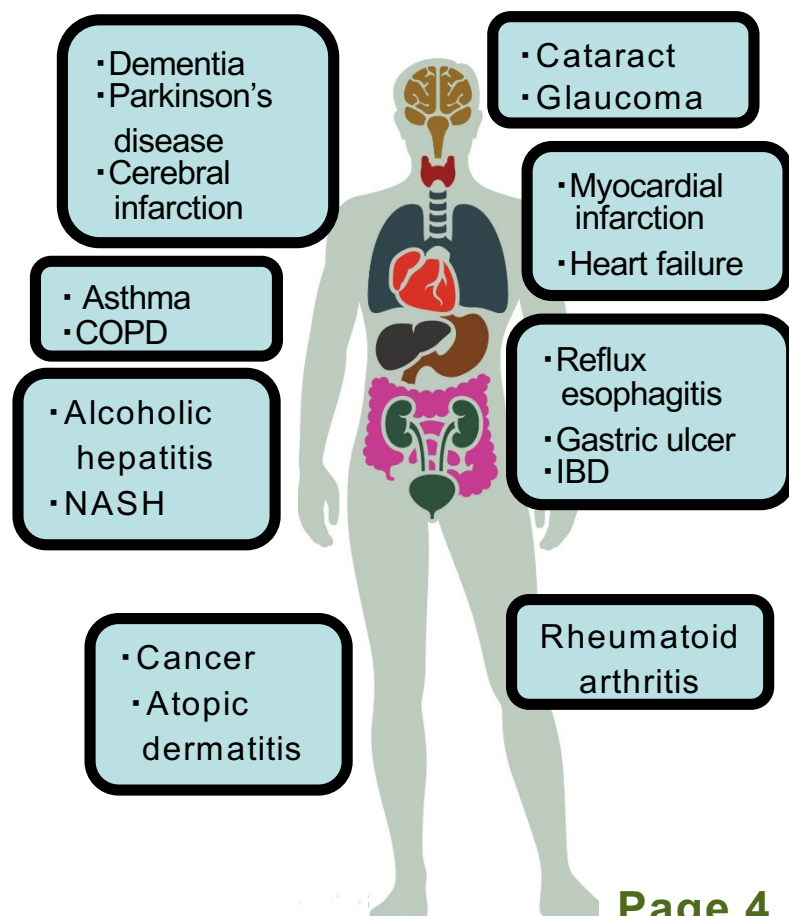
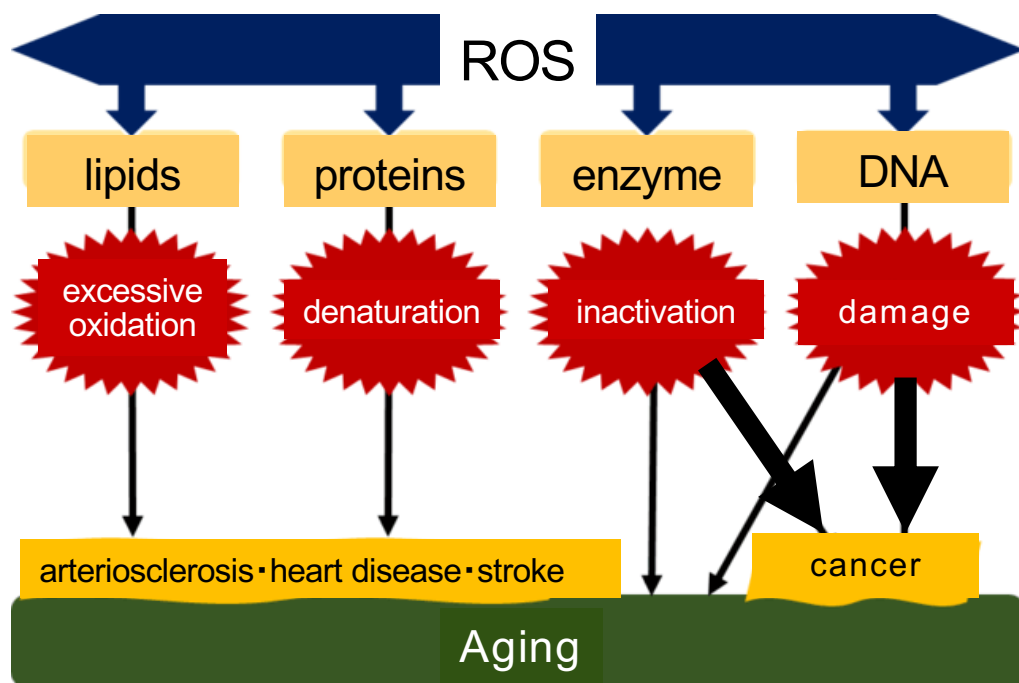
ROS

Antioxidant



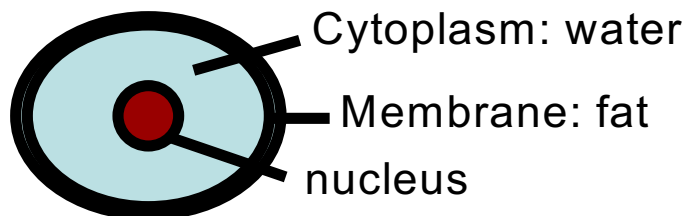
Oxidation stress

Damaging effects of ROS on a human body

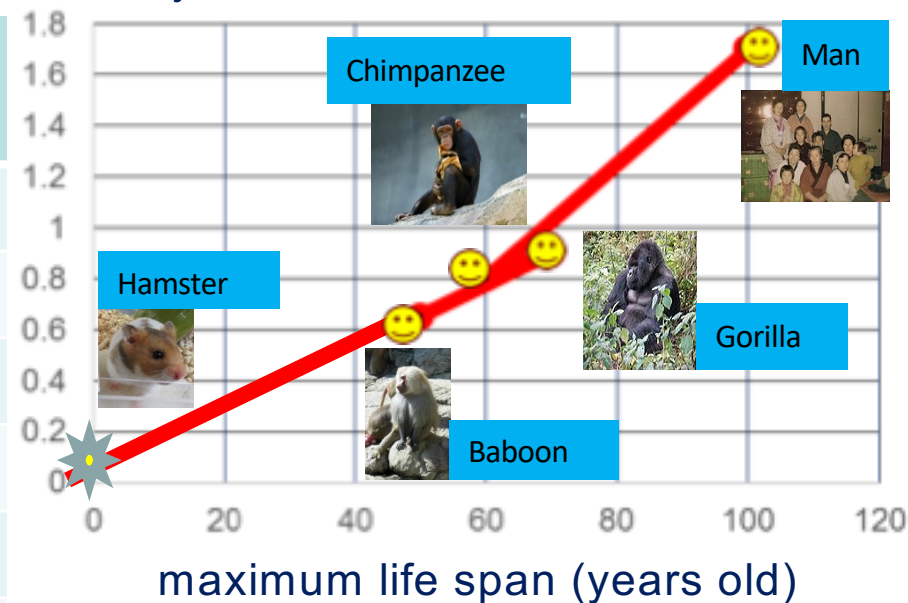


Antioxidants, antioxidant enzyme and life span

Antioxidants	Molecular weight	Water solubility	Fat solubility
Catalase	24×10^4		
SOD	4×10^4		
GPx	9.5×10^4		
Carotene	536		
Vit C	176	○	✕
Vit E	430	✕	○
H ₂	2	○	○



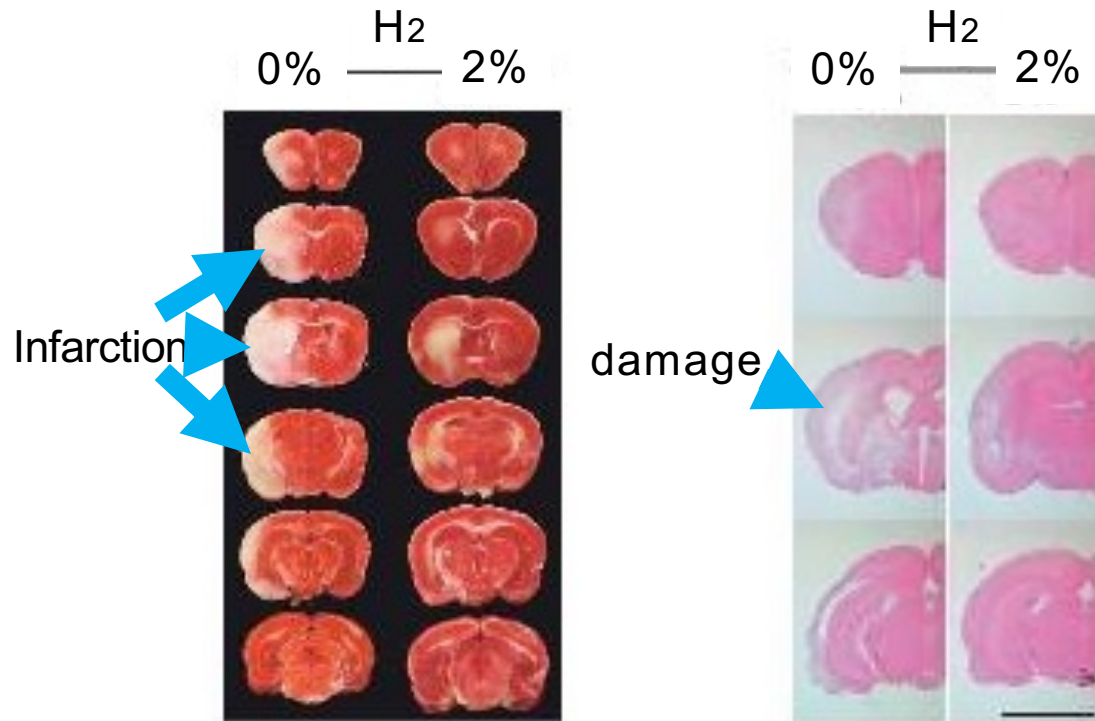
Redox Ability



Superoxide dismutase: correlation with life-span and specific metabolic rate in primate species.

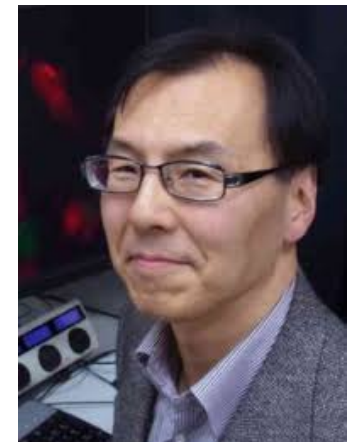
Proc Natl Acad Sci USA. 1980 May; 77(5): 2777-81
JM Tolmasoff, T Ono and RG Cutler

First report of therapeutic effects of molecular hydrogen



Inhalation of H₂ gas suppresses the progression of damage after 1 day of middle cerebral artery occlusion (rat brain).

Inhalation of H₂ gas improved brain injury after 1 week of artery occlusion.



Dr. Ikuroh Ohsawa
(Japanese)

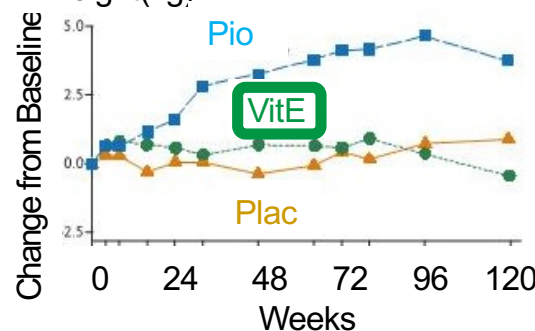
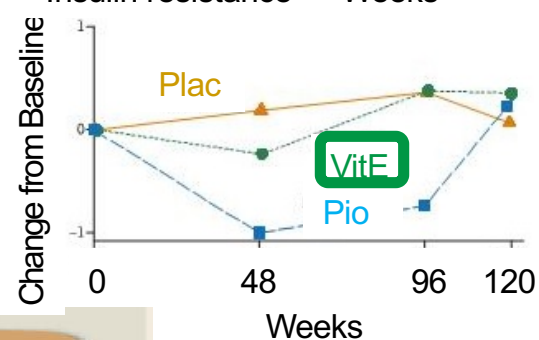
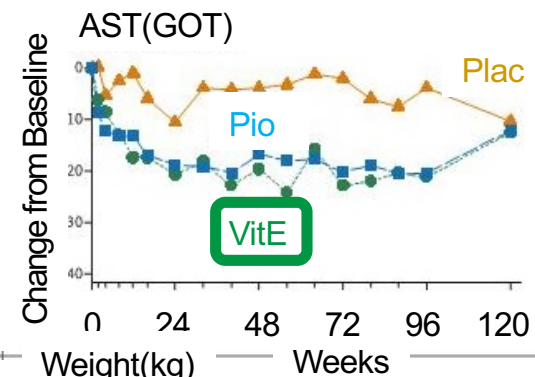
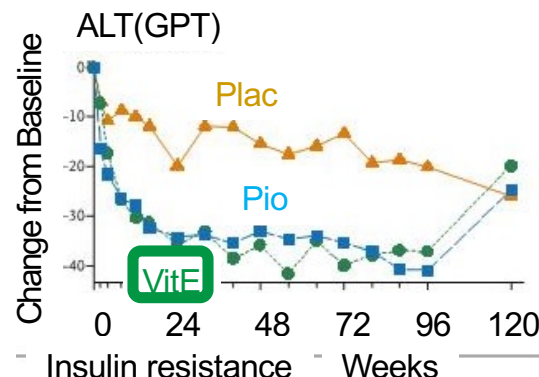
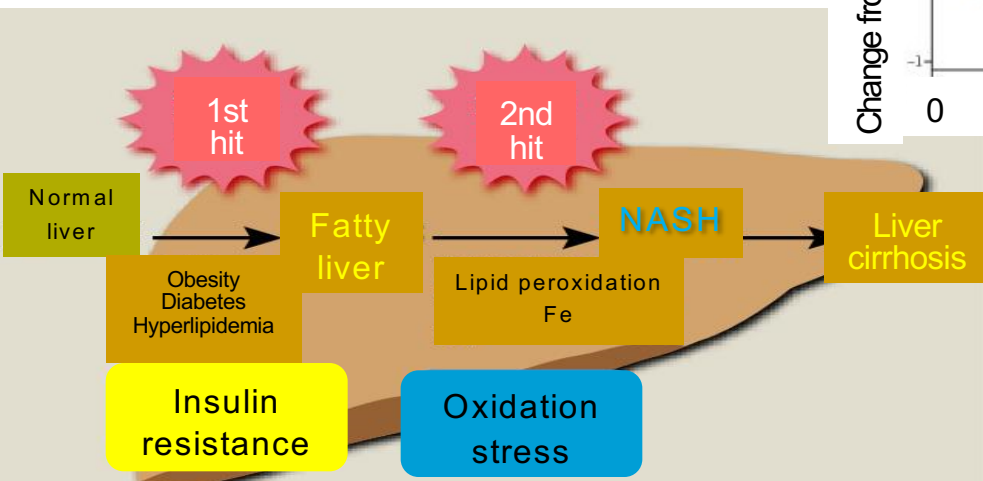
Hydrogen acts as a therapeutic antioxidant by selectively reducing cytotoxic oxygen radicals
Ohsawa I. et al: Nat Med 2007;13:688—694.

Vitamin E and NASH (Non Alcoholic SteatoHepatitis)

Laparoscopic findings of NASH
(53 years old, female)



Mechanism of NASH

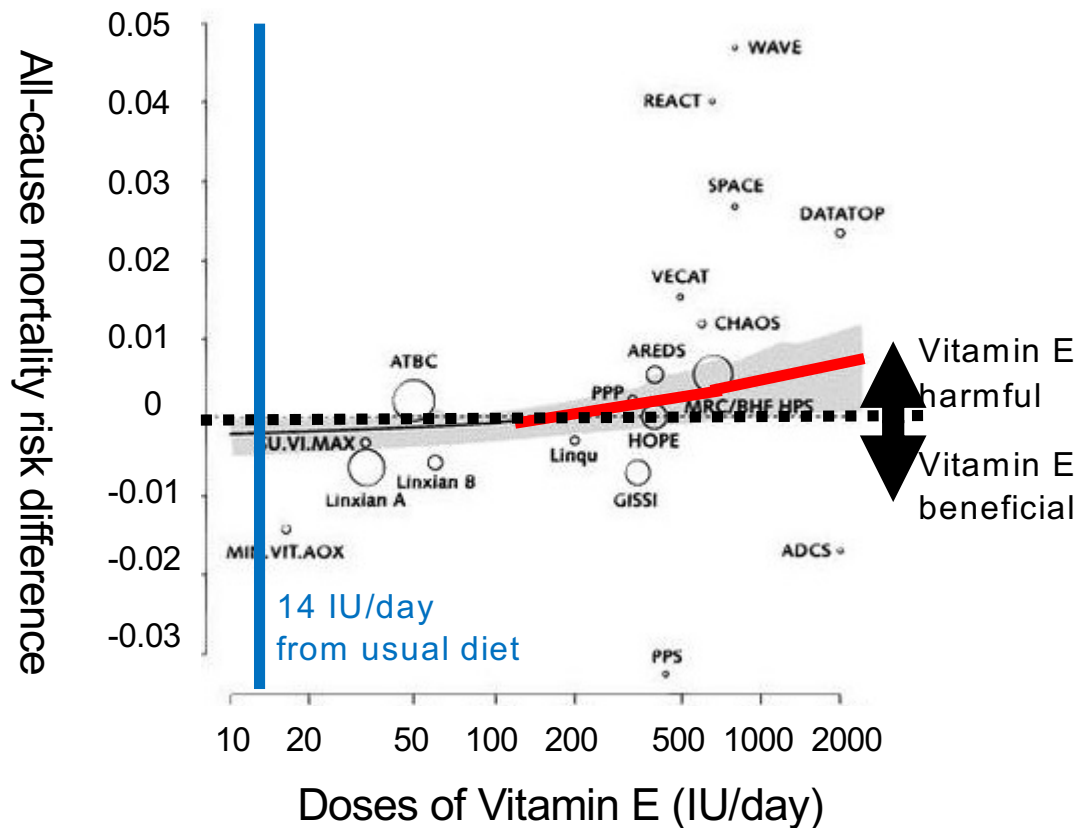


Pio: Pioglitazone, VitE: Vitamin E, Plac: Placebo

Pioglitazone, Vitamin E, or Placebo
for Nonalcoholic Steatohepatitis

Sanyal AJ et al. N Engl J Med 2010;362:1675-85.

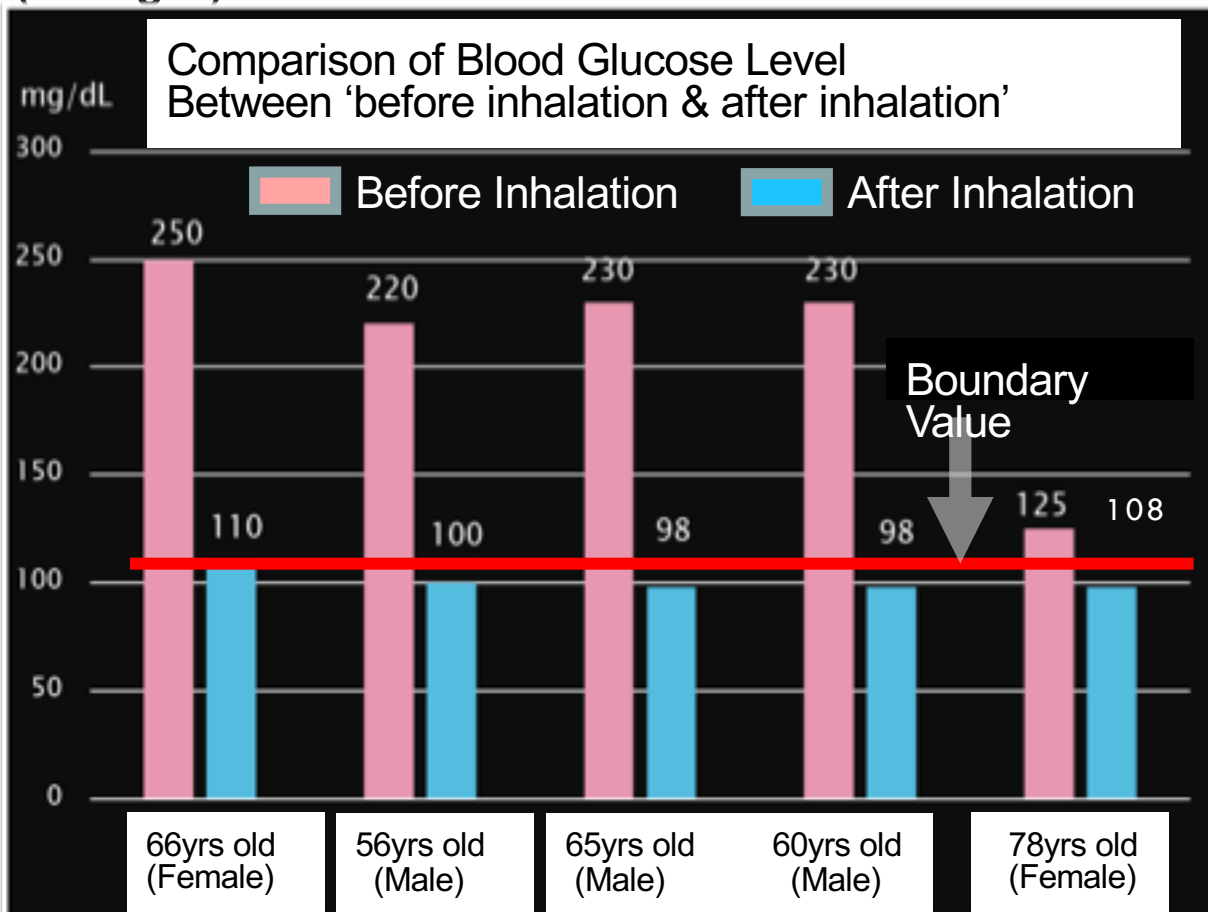
High-Dosage of Vitamin E Supplementation



Meta-Analysis: High-Dosage Vitamin E Supplementation May Increase All-Cause Mortality
Miller et al. *Ann Intern Med.* 2005;142:37-46

Effect of HHO gas on Diabetes①

Results of Blood Glucose Level by the Inhalation of High Density Hydrogen-Oxygen Gas (HHO gas) for Diabetes



Location of Medical Institution

Implemented by

Evans Co.,Ltd. (Dr. Kondo)

Bio-venture Medical Institute
in Osaka Univ. Medical Dep.

Implemented Term

From Feb.9 to April 8 in 2015
(For two months)

Implemented Equipment

Model No. : LHG L Type (1 Set)

High Density Hydrogen-Oxygen
Generator

Manufactured by Legarsi Inc.

Total Nos. of Patients : 39

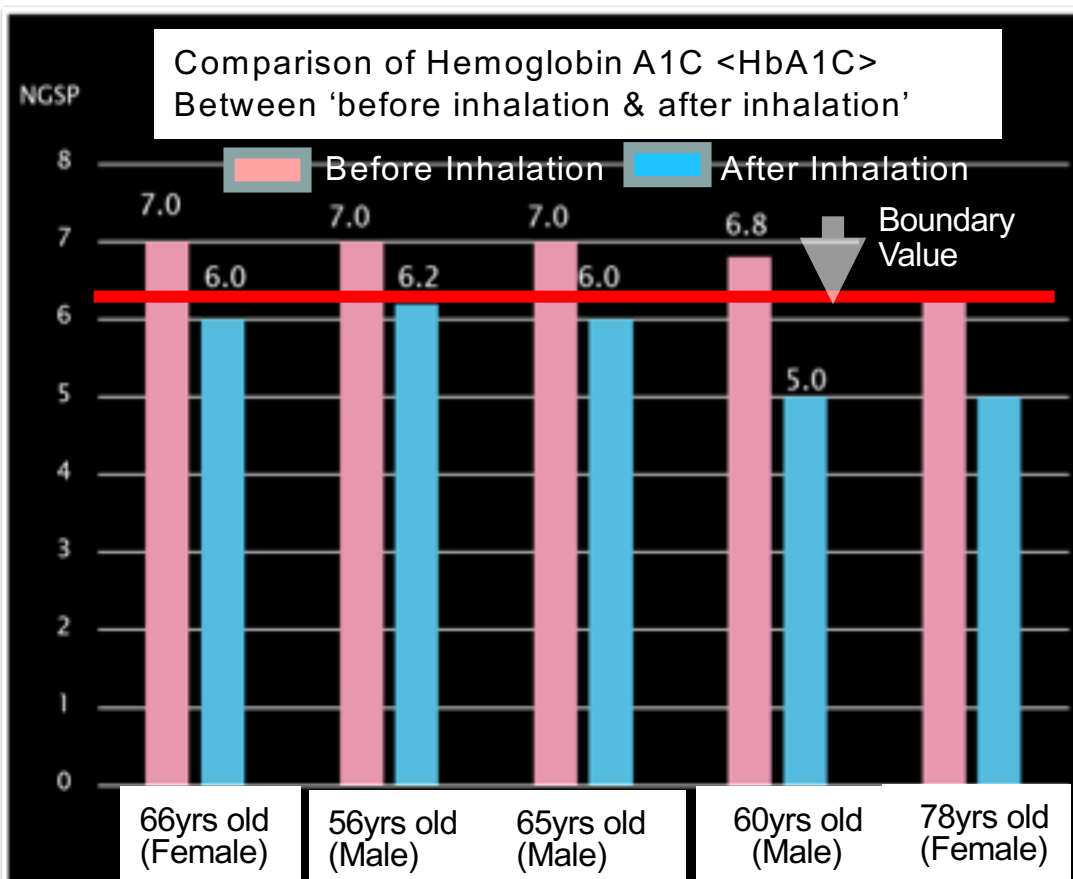
Inhalation Time : 1 hour per day
for two months

LHG L-Type Appearance



Effect of HHO gas on Diabetes②

Results of HbA1c by Inhalation of the High Density Hydrogen-Oxygen Gas (HHO gas) for Diabetes



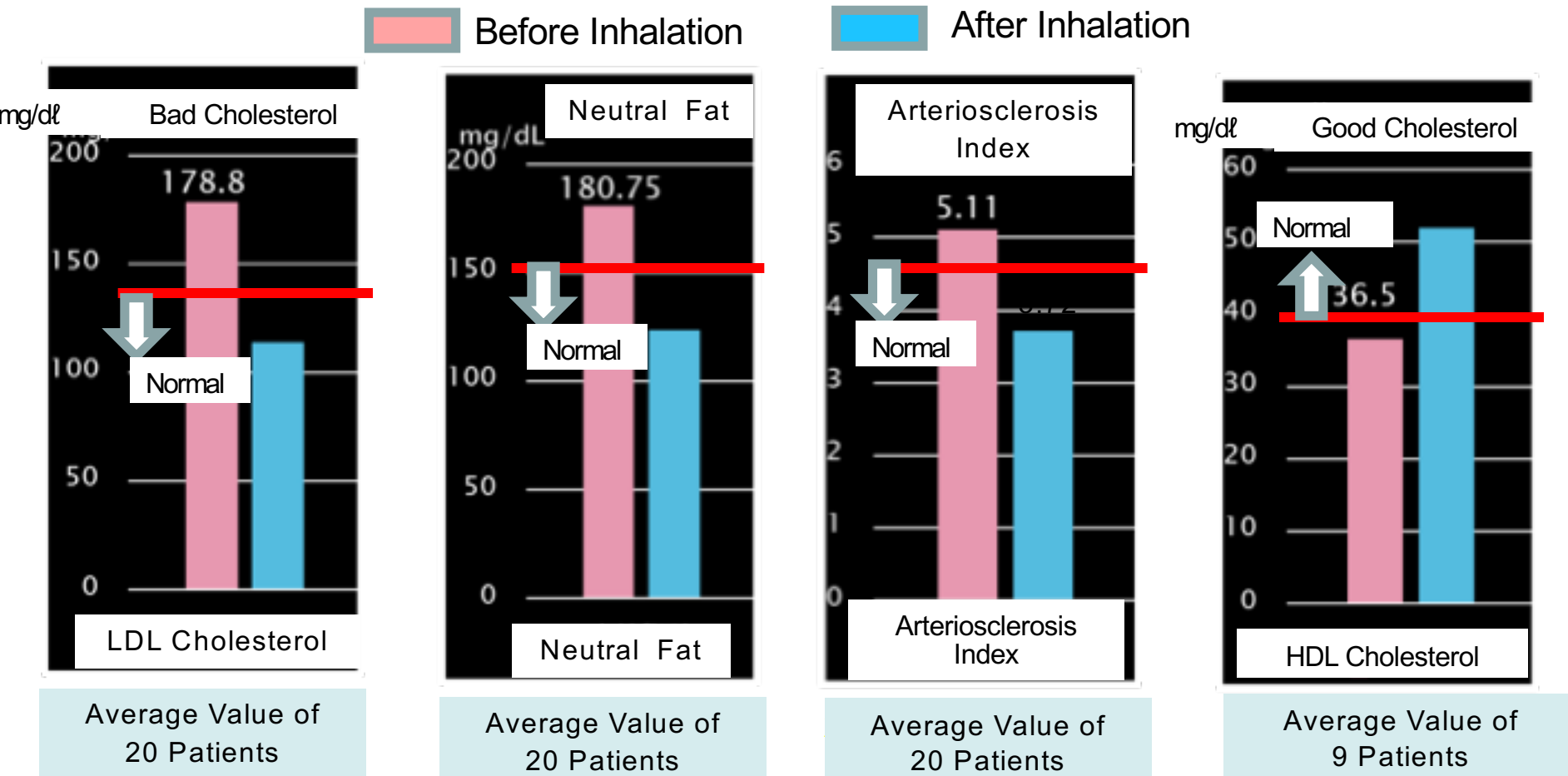
Current Status of Diabetes in Japan

Number of diabetic patients in Japan on 2019 : Total 3,289,000 (1,848,000 Male, 1,442,000 Female)

Diabetes Reserve Persons : 20 millions

Effect of HHO gas on Hyperlipidemia

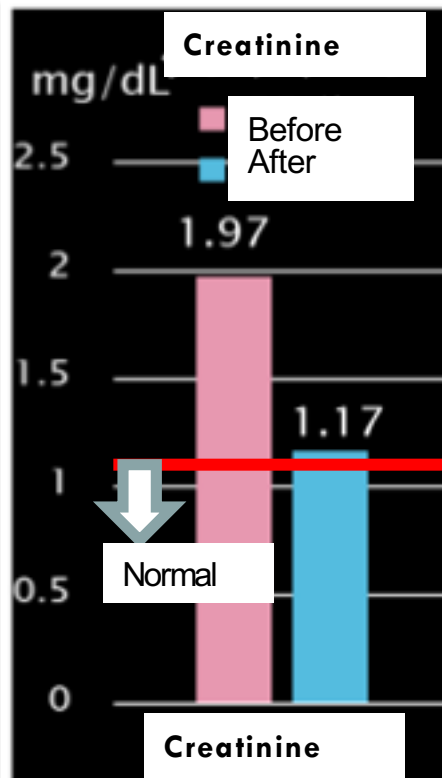
Results of Blood Test by Inhalation of the High Density Hydrogen-Oxygen Gas (HHO gas) for Hyperlipidemia and Arteriosclerosis



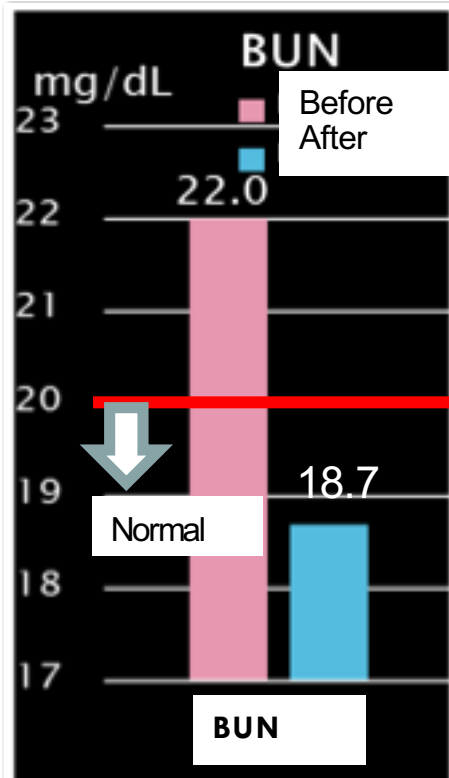
Effect of HHO gas on Chronic Kidney Disease (CKD)

Kidney Disease

Average Value of
20 Patients



Average Value of
20 Patients



Artificial dialysis patient

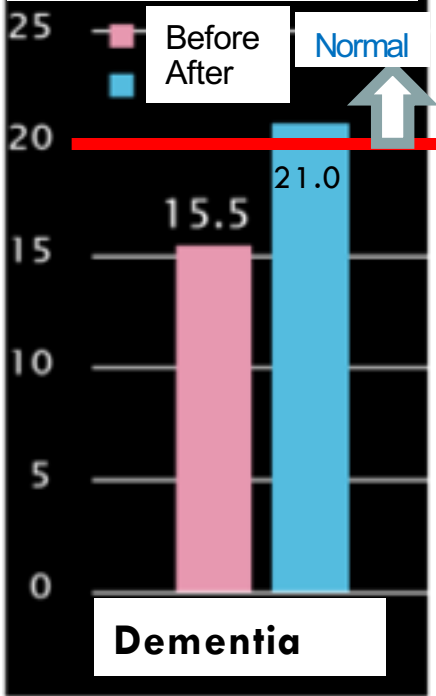


Effect of HHO gas on Dementia

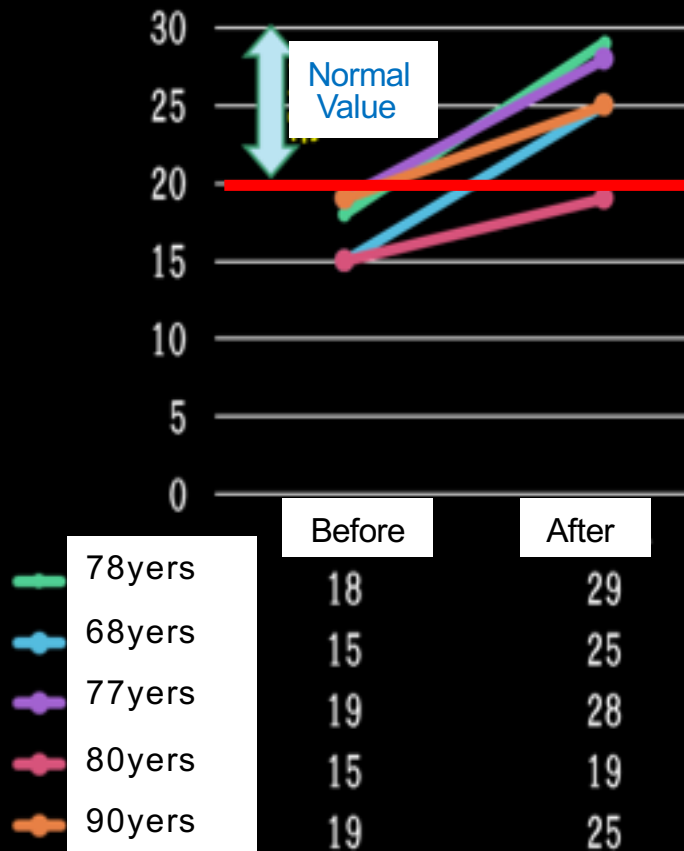
Dementia (All)

Average Value of 10 Patients

Dementia Index

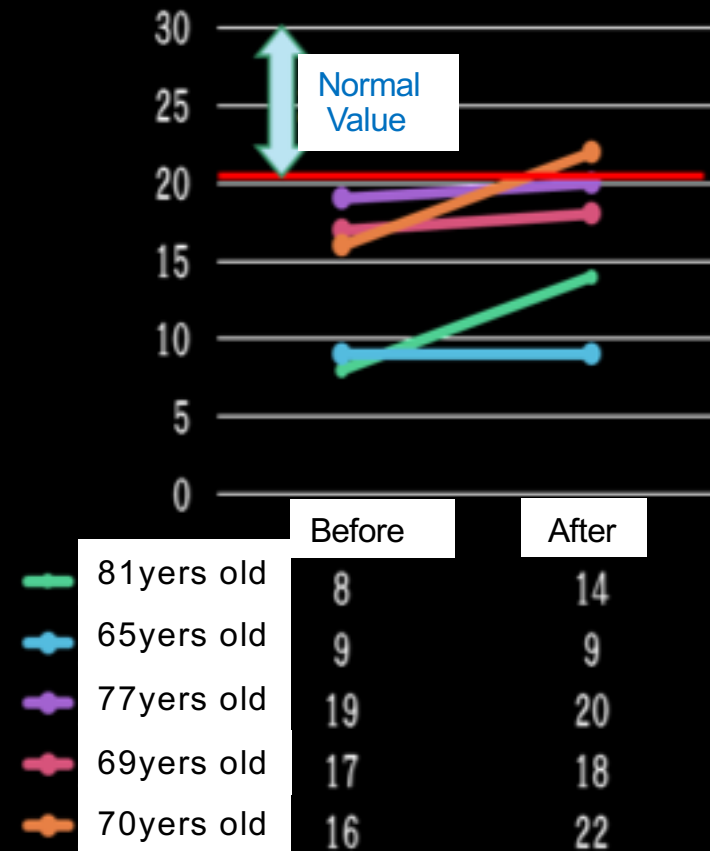


Dementia Index of Women



After Inhalation of HHO gas, Women were well recovered .

Dementia Index of Men



After Inhalation of HHO gas, Men were not well recovered .

A case of Quick Recovery of Skin Inflammation with HHO gas

Quick Results by Inhalation of the High Density Hydrogen-Oxygen Gas (HHO gas) for two hours

He suffered from a chronic leg swelling due to diabetes.

Before inhalation



After inhalation for Two Hours



A case of Early Recovery of Detached Fracture with HHO gas

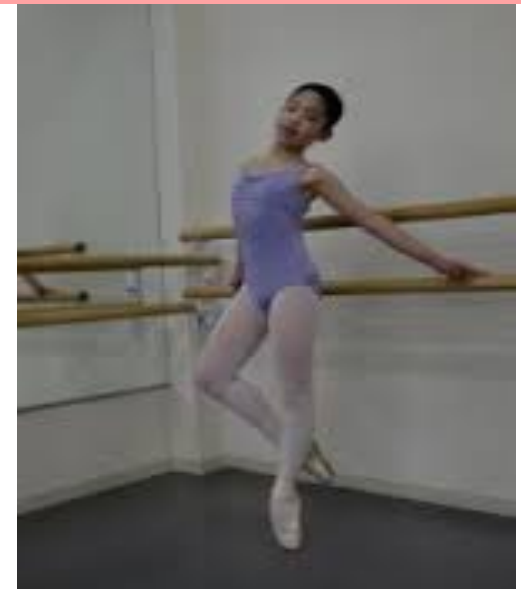
On April,15 2016, 16 years old student came to the Orthopedic Clinic with a right ankle detachment fracture. Dr. Nishizaki diagnosed that the cure was **two and a half month**. According to her mother's request, she will participate in a volley recital as a solo **one month** later , so she wanted to participate.

From April,16 2016 , she started the High Density Hydrogen-Oxygen Gas Inhalation Method as a early full recovery. She inhaled 600cc/min. every day.

From April, 30 2016, she was able to start practicing with taping. She felt little bid pained.

On April,15 2016, she participate volley recital as a solo with **no pain**. She awarded **M.V.P. Prize**.

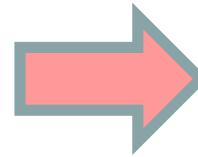
16 years old woman



A case of miraculous recovery from serious radiation exposure (70s Japanese Women)



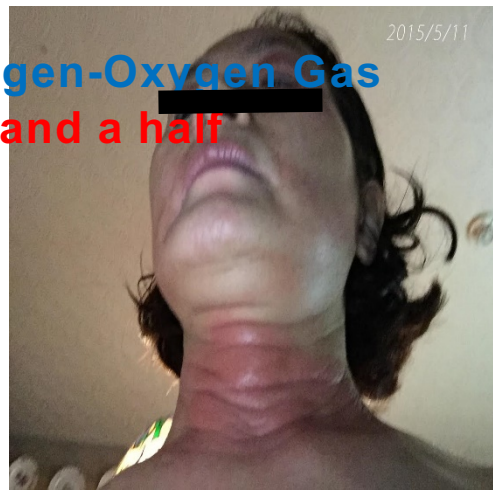
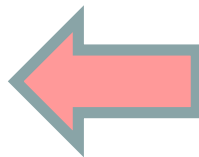
Tooth Whitening Treatments are limited to three times at a dental clinic in Tokyo. Due to dentist's mistake, she got treatments 23 times without much explosion proof protection



Low Density Hydrogen-Oxygen Gas over one year



High Density Hydrogen-Oxygen Gas five months and a half



A case of improvement of motor function in ALS (Amyotrophic Lateral Sclerosis)



**Currently editing video !
Please wait !**

**Before Inhalation of
HHO gas**



**After Inhalation of HHO
gas for five times :
Total 5 hours Inhalation**



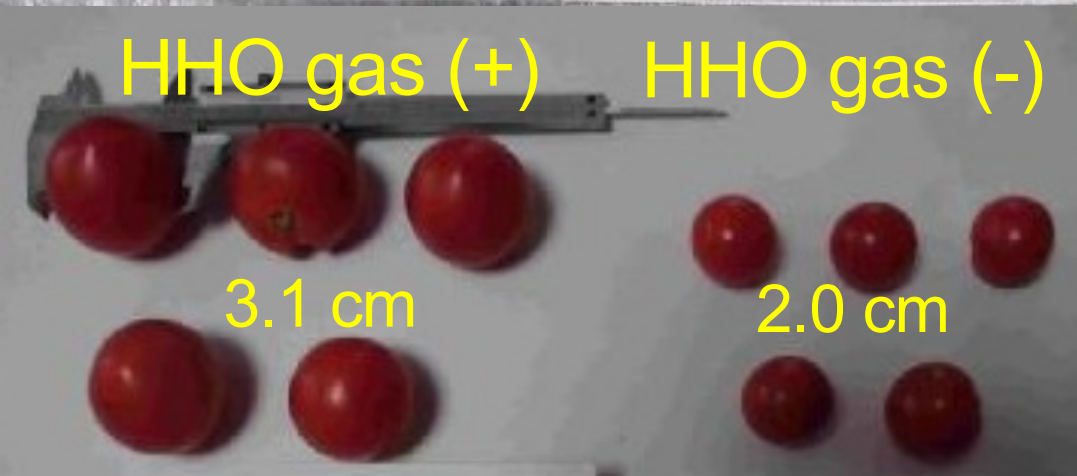
**Currently editing video !
Please wait !**

**Before Inhalation of
HHO gas**



**After Inhalation of HHO
gas for five times :
Total 5 hours Inhalation**

Effect of HHO gas on plant growth



Japanese landscape after CORONA



Thank you very much

