

# Kakegawa Study

To certify the health promotion effects from the green tea, the large scale of nutritional epidemiology study of Kakegawa-city citizens has been conducted through full coordination with Kakegawa City since the end of June 2009. This study is intended for establishing the health promotion effects from green tea and contributing to the health promotion for the people all over the world.

\*The nutritional epidemiology is the collaborative study of Professor Kuriyama of Tohoku University, Professor Tachibana of Kyushu University, and Ms. Yamamoto of National Institute of Vegetable and Tea Science.

## Green Tea Cohort Study

Study about lifestyle habit of drinking green tea and health condition through the survey, blood test, and body measurements and study how the lifestyle habit and sickness are related by the follow-up research. The follow-up research is still going on today.

## Green Tea Intervention Research

The research of green tea's preventive effect for lifestyle-related diseases by blood test has been conducted after people had green tea-related foods for 12 consecutive weeks. The total of 413 people has participated in the test by FY2011.

## The Way of Taking Green Tea and Catechin Absorption Analysis

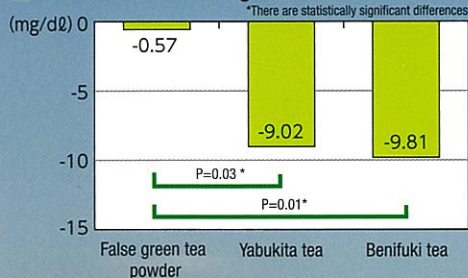
It has been researched how the temperature, time, grain size of green tea, and the way of drinking tea affect to the catechin absorption into a body.

## Research about Lifestyle Habits and Green Tea Catechin Absorption

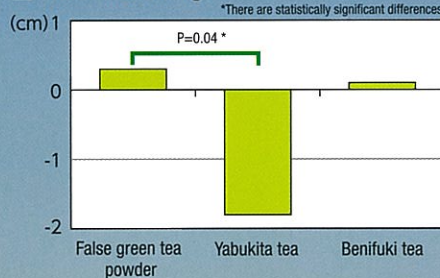
It has been researched for what kind of lifestyle habits are suitable in order to effectively absorb green-tea catechin into a body.

The green tea intervention research was conducted for checking the preventive effects for lifestyle related diseases, especially for arteriosclerosis. The participants of the research were divided into three groups; one had taken a capsule of Yabukita tea extractive powder, one had taken a capsule of Benifuki tea extractive powder, and the other one had taken a capsule of false green tea extractive powder which green tea component is removed after every meal for 12 weeks. The result shows the preventive effects of green tea for lifestyle-related diseases.

### LDL-Cholesterol change



### Waist Size Change



For the people in the group which had taken a capsule of Yabukita tea extractive powder for 12 weeks, LDL-Cholesterol decreased by 9.02mg/dl on average and their waists were sized down by 1.86cm on average. According to Professor Kuriyama who led this research, these effects green tea brings without exercises and dietary restriction are almost equal to the one with the prescribed medicines.

### Medical Expense Per Elderly Person Aged 75 and Over

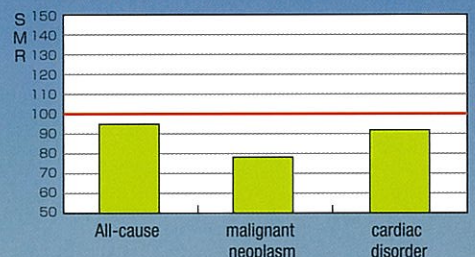
	Kakegawa (a)	Japan (b)	(a)/(b)
FY2010	689,268JPY	904,795JPY	0.76
FY2011	710,560JPY	918,206JPY	0.77
FY2012	720,118JPY	919,452JPY	0.78
FY2013	727,557JPY	929,573JPY	0.78
FY2014	741,941JPY	923,576JPY	0.80

The medical expense per elderly person aged 75 and over in Kakegawa City is lower than the national average by over 20 percent.

Based on Chart 2 of Medical Service Status Report for the Elderly Aged 75 and Older (Ministry of Health, Labour and Welfare) and Information Materials of Shizuoka Medical Care Extended Association for the Elderly Aged 75 and Older

### Cause-Specific Standardized Mortality Ratio (SMR) in Kakegawa City

(Cause-Specific SMR (Nation=100):Total (2008 to 2012))



\*Reference: Shizuoka Municipal SMR from 2008 to 2012 (Shizuoka Institute of Health)

The research shows that the mortality of each cause in Kakegawa City for cancer is lower than the national average by 20.8 points and for cardiac disorder, by 8.1 points.

### Cancer-Caused Standardized Mortality Ratio

According to the cancer mortality statistics of targeted cities with the population of 100,000 and more, the cancer mortality of male and female residents of Kakegawa City is the lowest of all.

Based on MHLW Demographic Survey Special Report "Population Survey Report by Healthcare Centers and Municipalities from FY2008 to FY2012"

Healthy Life and Healthy Value with Fukamushicha, deep steamed green tea

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