

Kakegawa Green Tea Maker
OHKURAEN CO., LTD.
901-4 KAKUWA KAKEGAWA SHIZUOKA 436-0113 JAPAN

Tel. +81-537-22-3615 Fax. +81-537-22-3648

HOME OUR PRODUCTS

GIFT

OVERSEA STORES

Powder Tea Recipe



## TEA & CATECHIN

☆HOME > TEA & CATECHIN

Nutrition analysis result in Ohkuraen Micron Powder Tea

(This data is our original. Please do not copying or use the data without our permission.)

Nutrients and minerals in Ohkuraen Micron Powder Tea

**COMPANY PROFILE** 

WHAT'S NEW?

**INFORMATION** 

TEA & CATECHIN

ABOUT TEA

CUSTOMER'S VOICE

**INQUIRY** 

HOW TO ACCESS

PRIVACY POLICY







- Nutrients in Ohkuraen Micron Powder Tea
- Three major nutrients (carbohydrate, protein, fat): More than 70% are the three major nutrients in Ohkuraen Deep Steamed Micron Powder Tea.
- Dietary Fiber: Dietary fiber intake should be 17g-19g per day. Ohkuraen Micron Powder Tea has about 21- 24g of dietary fiber per 100g.
- Tea Catechin: Catechin, gallocatechin, epicatechin, epigallocatechin, epigallocatechin gallate, gallocatechin gallate, epicatechin gallate are healthy ingredients that only green tea leaves provide. Our Micron Powder Tea has more than 10,000-13,000mg of them per 100g.
- Tea Saponin: Tea saponin suppresses obesity, prevents arteriosclerosis, has anti-inflammatory action, prevents stress ulcer, and has soothing effect on mental condition and nerves. Ohkuraen Micron Powder Tea has 6,200-6,900mg of it per 100g.
- Amino Acid/Theanine: There are about 20 kinds of amino acid that our body needs in nature. Ohkuraen Micron Powder Tea has 2,400-4,000mg of all amino acid per 100g. 1,100-1,700mg of it is theanine. Theanine has anti-stress effect, provides quality sleep, and helps to recover from fatigue. It is also reported that it helps to recover from depression or irritation from PMS, improves concentration ability, has synergistic effect with caffeine, has hypotensive effect, improves memory skill, provides enhancing effect on anti-cancer drug, and helps to prevent cerebrovascular disease.
- Synergy of Theanine and Caffeine: It is reported that theanine and caffeine by their synergistic effect in green tea help suppress the progress of dementia. Our Micron Powder Tea has 1,100-1,700mg of theanine and 2,700-3,000mg of caffeine per 100g.
- Chlorophyll: Ohkuraen Micron Powder Tea has 430-450 mg of Chlorophyll per 100g. Spinach has 77mg per100g. Japanese mustard spinach (Komatsuna) has 71mg per 100g. Chinese chive (nira) has

40mg per 100g. Garland chrysanthemum (shungiku) has 35mg per 100g. Our green tea product has far more chlorophyll than these major vegetables. Chlorophyll has strong antioxidative effect and detoxing effect.. It eliminates active oxygen developed in our bodies and helps to prevent cancer, and lowers cholesterol level in blood. It prevents thrombosis and lowers blood pressure. It also helps to discharge metabolic decomposition product deposited in stomach and intestines. Drink our Micron Powder Tea everyday to have a healthy life!



• Potassium: Lack of potassium causes feeling of weakness, bowel distention, dyspnea, and arrhythmia as physical symptoms. It causes nervousness and hysteria as mental symptoms. It also causes urinary problem like pyelonephritis with symptom of degeneration of renal tubule. Ohkuraen Micron Powder Tea has 5,400-5,600mg of potassium per 100g. The tea is a convenient drink when you lose potassium by sweating in hot summer. The intake balance of potassium and sodium widely impacts cellular metabolism to nerve system. When the balance is destructed, your health would naturally deteriorate. Potassium also has hypotensive effect. Drink Ohkuraen Micron Powder Tea everyday to have a healthy life!

• Phosphorus & Calsium: Lack of phosphorus weakens bones and teeth and causes pyorrhea and osteomalacia. It also weakens joints and muscles. It might lead to neuralgia. Ideal intake of phosphorus and calcium should be the same amount to increase the absorptivity of calcium. Our Micron Powder Tea has phosphorus and calcium with relatively good amount to each other Having a bowl of yogurt in addition to our green tea would be just perfect!

• Magnesium & Calcium: They are important minerals to build bones and teeth. They keep balancing each other. Lack of either of them would deteriorate the health condition. The rate of calcium and magnesium should be 2:1. Magnesium in muscles works to contract itself properly. Proper contraction of heart muscle prevents heart attack and arteriosclerosis. Lack of magnesium causes convulsive seizures and leg cramps. Ohkuraen Micron Powder Tea has 310-320mg of calcium per 100g and has 190-220mg of magnesium per 100g. Our tea is the best drink to support your health.

• Manganese, iron, sodium, zinc, copper: Manganese improves reproductive function. It helps to promote skin metabolism and hair restoration. It is one of the important minerals to impact body and mental status. Iron and copper prevent anemia. Yet chronically anemic people are increasing in this modern era. Don't forget to take iron and copper which are the essential life support component. Zinc works as tranquilizer, improves immunity, improves memory, has detoxing effect, improves skin metabolism, has diet effect, has hair restoration effect and so on. Ohkuraen Micron Powder Tea has 48-50mg of magnesium per 100g and 2.8-3.2mg of zinc per 100g. Drinking our green tea everyday offers you a healthy life!

# **Ohkuraen Deep Steamed Micron Powder Tea**

is your big partner of your healthy life!

Association of consumption of green tea with mortality risk

Green tea consumption may reduce the risk of all cause mortality.

Japan Public Health Center-based Prospective Study (JPHC Study) in Japan Cancer Center studied the association of green tea consumption with mortality due to all causes and major causes of death in a Japanese population.

The following is the thesis introduced to Annals of Epidemiology. (Annals of Epidemiology: April 2015)

### Abstract

**PURPOSE:** 

We examined the association between green tea consumption and mortality due to all causes, cancer, heart disease, cerebrovascular disease, respiratory disease, injuries, and other causes of death in a large-scale population-based cohort study in Japan.

















Products of OHKURAEN are delivered to U.S.A., Singapore, Hong Kong, Taiwan, Thailand, Russia, Mongol, Indonesia, etc.

#### **OHKURAEN CO., LTD.**

901-4 KAKUWA, KAKEGAWA-SHI, SHIZUOKA-KEN 436-0113 JAPAN

TEL. +81-537-22-3615 FAX. +81-537-22-3648

2 3 4 2 1 1

#### **METHODS:**

We studied 90,914 Japanese (aged between 40 and 69 years) recruited between 1990 and 1994. After 18.7 years of follow-up, 12,874 deaths were reported. The association between green tea consumption and risk of all causes and major causes of mortality was assessed using the Cox proportional hazards regression model with adjustment for potential confounders.

#### RESULTS

Hazard ratios for all-cause mortality among men who consumed green tea compared with those who drank less than 1 cup/day were 0.96 (0.89-1.03) for 1-2 cups/day, 0.88 (0.82-0.95) for 3-4 cups/day, and 0.87 (0.81-0.94) for more than 5 cups/day (P for trend <.001). Corresponding hazard ratios for women were 0.90 (0.81-1.00), 0.87 (0.79-0.96), and 0.83 (0.75-0.91; P for trend <.001). Green tea was inversely associated with mortality from heart disease in both men and women and mortality from cerebrovascular disease and respiratory disease in men. No association was found between green tea and total cancer mortality.

#### **CONCLUSIONS:**

This prospective study suggests that the consumption of green tea may reduce the risk of all-cause mortality and the three leading causes of death in Japan.

Copyright © 2015 Elsevier Inc. All rights reserved.

\* If you would like to know more, please visit the following: https://s100.copyright.com/AppDispatchServlet? publisherName=ELS&contentID=S1047279715000964&orderBeanReset=true

## The Health Benefits of Tea by Fox News broadcasted on 2013/12/22

## The Health Benefits of Tea by Fox News in U.S.A.

Dr. Marc Siegel from NYU Langone Medical Center says tea drinking may lower the risk for heart disease and stroke. Study shows that natural compounds in tea may protect against several cancers including prostate cancer. Also tea polyphenols are thought to strengthen bones. People who drink tea could see improvements in concentration.



## Three cups of tea a day decrease the risk of stroke.

Dr. Siegel drinks three cups of tea a day because study at UCLA shows that three cups of tea a day dramatically decrease the risk of stroke. It also helps weight loss.



#### Health Benefit of EGCG much included in tea

Dr. David Samadi from Lenox Hill Hospital says you have to get enough antioxidant to be able to get full effect of anti-cancer and heart protection. He stresses the benefit of EGCG. EGCG is the most abundant catechin in tea and is a potent antioxidant. EGCG can slow down process of Alzheimer disease, reduce the bad cholestrol (LDL) and increase good cholestrol (HDL).

HEALTH BENEFITS OF TEA

\* EGCG: Epigallocatechin Gallate

Dr. Siegel and Dr. Samadi say green tea has the highest catechin content.





Both Dr. Siegel and Dr. Samadi emphasize green tea has the highest catechin content. Catechin can be found also in all fruits and vegetables. If you are not getting enough fruits and vegetables, you can catch up with antioxidant by drinking tea!

Association of green tea and coffee consumption with the risk of stroke

#### Association of green tea and coffee consumption with the risk of stroke

Japan Public Health Center-based Prospective Study (JPHC Study) in Japan Cancer Center studied the impact of green tea and coffee consumption on the reduced risk of stroke incidence in Japanese pobulation. The following is the thesis introduced to a journal Stroke.

#### **Abstract**

#### **BACKGROUND AND PURPOSE:**

Few prospective studies have examined the impact of both green tea and coffee consumption on strokes. We investigated the association of the combination of those consumption with stroke incidence in a general population.

#### **METHODS:**

We studied 82 369 Japanese (aged 45-74 years; without cardiovascular disease [CVD] or cancer in 1995 and 1998 for Cohort I and II, respectively) who received 13 years of mean follow-up through the end of 2007. Green tea and coffee consumption was assessed by self-administered food frequency questionnaire at baseline.

## RESULTS:

In the 1 066 718 person-years of follow-up, we documented the incidence of strokes (n=3425) and coronary heart disease (n=910). Compared with seldom drinking green tea, the multivariable-adjusted hazard ratios (95% confidence intervals) of all strokes were 0.86 (0.78-0.95) and 0.80 (0.73-0.89) in green tea 2 to 3 and  $\geq$  4 cups/d, respectively. Higher green tea consumption was associated with inverse risks of CVD and strokes subtypes. Compared with seldom drinking coffee, the multivariable-adjusted hazard ratios (95% confidence intervals) of all strokes were 0.89 (0.80-0.99), 0.80 (0.72-0.90), and 0.81 (0.72-0.91) for coffee 3 to 6 times/week and 1 and  $\geq$  2 times/day, respectively. Coffee consumption was associated with an inverse risk of CVD and cerebral infarction. Higher green tea or coffee consumption reduced the risks of CVD and stroke subtypes (especially in intracerebral hemorrhage, P for interaction between green tea and coffee=0.04). None of the significant association was observed in coronary heart disease.

### **CONCLUSIONS:**

Higher green tea and coffee consumption were inversely associated with risk of CVD and stroke in general population.

Shizuoka pref. declared safety of 2011 new green tea (2011/5/21)

\*\* Shizuoka Prefecture has declared safety of 2011 green tea harvested in Shizuoka pref. \*

\*

Mr. Kawakatsu, the governor of Shizuoka prefecture, has declared the safety of green tea harvested in Shizuoka pref. in this spring. This was based on the result from analysis (held on 5/18) of residual radioactivity in fresh green tea leaves and tea leaves to drink.

Based on the announcement of Shizuoka pref., Ohkuraen would like to explain the safety of Kakegawa tea so that customers can plainly understand the safety and can drink 2011 high quality new green tea in relief. We attempt to explain by our own method from the standpoint of consumers.

#### 1. What are the units of measurement used in analyzing radiation?

- \* A Becquerel (Bq/kg) is the unit of quantity of radioactive materials included in 1kg object
- \* A Sievert (Sv/kg) is the radiation dose radiated from 1 kg object.
- \* A Gray (Gy=J/kg) is the unit of energy received from radiation to 1kg object.

The above may help you to understand the following.

#### 2. How can we calculate the radiation in Kakegawa fresh green tea leaves?

The measured quantity of radiation from Kakegawa fresh green tea is 39.83Bq/kg

- \* Converted to radiation quantity of crude tea : 199.15Bq/kg (Estimated value concentrated in the stage from fresh tea leaves to crude tea)
- \* Converted to radiation quantity of Sencha: 284.4Bq/kg (Estimated value concentrated in the processing stage from crude tea to Sencha)

What does this mean to someone who drinks a lot of green tea every day?

Suppose someone drinks 6 cups of tea (1 cup = 3 g of tea leaf) in a day and continues to drink 365 days, how many sieverts would that be? We calculated in the strict condition supposing no release of radioactive material during tea product process and logistic process (therefore, the maximum possible amount).

Intake quantity (kg/day)×Intake days ×Density of radioactivity (Bq/kg)×Actual coefficient (Sv/bq)× Dilution coefficient in the market ×Compensate value due to cooking, etc. :

 $0.001 \times 3 \times 6 \times 365 \times 284.5 \times 1.3 \times 10 - 8 \times 1 \times 1 = 0.00002429915Sv$ 

0.00002429915Sv=24.29915µSv

24.29915µSv=0.0243mSv

## So the total amount received at six cups per day for one whole year is only 0.0243mSv.

This is a very small quantity compared to how much we receive in nature.

## 3. How does that compare to the radiation we receive in the natural world?

We naturally receive very low amounts of radiation all the time, from space, from the earth itself, and from the food we eat. This is how much radiation scientists estimate a normal person receives in the natural world over the course of a year:

- \* Radiation from the universe (from space) : 0.3mSv
- \* Radiation received from the earth: 0.4mSv
- \* Radiation to be taken normally from foods: 0.4mSv
- \* Radon in the air (Radioactive chemical element occurring naturally

as the decay product of uranium) :  $10\sim40$ Bq/M3

Radiation to be received from the natural world in a year : 1.1mSv (Except radon)

So the total amount of radiation received drinking six cups of tea every day for a whole year is less than one tenth (1/10th) of the radiation that we receive naturally from space in a single year. You would have to drink 6 cups every day for 45 years to equal the radiation that we receive in the natural world in just one year.

### 4. How does that compare to the radiation we receive in the man-made world?

- \* A round trip by airplane from Tokyo to New York : 0.135 mSv
- \* One time of X-ray examination : 2.3mSv
- \* Radiation from atomic plant : 0.001mSv
- \* Radioactive rain: 0.01mSv

Radiation to be received artificially in a year: 2.466mSv

5. From the above calculation, it comes we are receiving radiation of **3.56mSv in the normal life in a year.** 

6. Comparing the result of the above, radiation got from drinking green tea 6 cups/day for a year is very, very small - too small to make a difference. Remember, the radiation quantity we naturally get from foods except green tea is 0.4mSv. The radiation we receive from drinking six cups of green tea every day is only about 6 percent of that.

CONCLUSION: Drinking green tea does not adversely affect the health of the human body at all in terms of radiation influence.

So, we confidently recommend you to take in green tea in your life. Many nutrients are included in green tea.

Please remember that thinking also affects our health. We believe that drinking green tea in a positive frame of mind may be a better choice than worrying about report of radiation quantity unnecessarily.

Note: The numerical value above was calculated by Ohkuraen based on the data provided by Japan Chemical Analysis Center entrusted by MEXT.

#### Radiation and Green tea catechin

#### Radiation and green tea catechin from Shizuoka Newspaper on 2000/11/11

(2011/4/11)

On 3/11/2011, tremendous disaster hit north-eastern part of Japan. Earthquake, tsunami and acident happening of Neuclear Power Plant. We, Japanese people, have been anxious about the affect caused by diffusion of radioactive substances since that day.

Tea maker, Ohkuraen, has been thinking what we can do against this matter and one day, we found a newspaper article reporting of research result concerning "Radiation and Green tea catechin". There is a thing what we, tea maker, can do! So, we started up this corner.

We would like to share this valuable information with the people as much as possible. Information that green tea is extremely effective in the view of protecting us from radiation.



Is it the best way for us to protect our health by ourselves positively? No effect results from only being worried about health damage due to radiation.

From news paper, Shizuoka Shinbun, on November 11, 2000

**Nuclear Energy** 

## 21st Century Science and Humans Radiation and Green Tea Catechin

Hiroe Yoshioka, Assistant Professor Department of Science Radiochemistry/Radiation Utilization Analysis Radiochemistry Research Center University of Shizuoka

Everybody's common fear for the utilization of nuclear energy is the mass exposure to radiation by possible accidents.

Why are living bodies weak to the mass exposure of radiation? What is the element that damages living bodies?

70 to 80 % of a human body is made out of molecules like water, protein nucleic acid, and lipid. The water molecules receive high energy from the radiation and break up by themselves and create reactive oxygen called hydroxyl radical (•OH).

•OH is extremely reactive substance and causes chemical change reaction with one of the nucleic acid, DNA, and lipid molecule, causing destruction of normal cells. When DNA is cut off, genetic information cannot be read accurately, resulting in cancer and hereditary diseases.

Lately scientists have uncovered that all kinds of diseases and even aging are caused by reactive oxygen. On the other hand, we have just started to discover that the reactive oxygen is created not only by radiation but also ultraviolet rays, food additives, or mental stress. Therefore, our bodies need to have substance that eliminates such reactive oxygen created within the bodies in order to maintain healthy bodies. Such a substance is called an antioxidant. One of the antioxidants that has been especially widely noticed is catechin. Our prefecture, Shizuoka's main product, green tea leaves have plenty of catechin.

Our research center has clarified that when DNA strand is being cut off by radiation, green tea solution or catechin from the green tea would prevent the disconnection if the DNA strand is seeped in them. This is because catechin can eliminate •OH that is created by radiation. In other words, we proved that green tea is extremely effective in the view of protecting us from radiation. We are currently researching the mechanism of how catechin eliminates reactive oxygen by various methods. We are engaged in further research to find even more effective antioxidants or create synthetic substances.

## Radiation and Green Tea Catechin from news paper Shizuoka Shinbun



Nuclear Energy 21st Century Science and Humans Radiation and Green Tea

#### Introduction of auther

Ms. Hiroe Yoshioka, was enrolled in the Department of Science, Shizuoka University in 1995 and from 2003 to 2004 as an Assistant Professor.

<From the database of KAKEN: Science Research Expenses Subsidy>

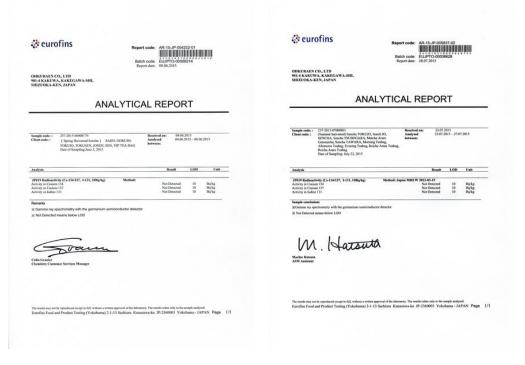
## Our green tea is SAFE!

Our green tea 2016 is safe. Radioactivity not detected.



Also this year, we asked radioactivity in our deep steamed green tea both spring harvested and summer harvested to an official inspection organization. NOT DETECTED was proved also this year. We will continue to manufacture safety and quality green tea products.

Our green tea 2015 is safe. Radioactivity not detected.



We asked inspection of radioactivity in our new green tea harvested in 2015 to an official inspection organization also this year. As a result, NOT DETECTED was proved in limit detection 10Bq/kg. Safety was proved in OHKURAEN's green tea. We will continue to manufacture safe and high quality green tea products.

Our green tea 2014 is safe. Radioactivity not detected.



Our new green tea harvested in 2014 was inspected by official inspection organization against radioactivity. As a result, NOT DETECTED was proved in limit detection 10Bq/kg. Safety was proved in OHKURAEN's green tea. We will continue to manufacture safe and high quality green tea products.

Our green tea 2013 is safe. Radioactivity not detected.



Our new green tea harvested in May, 2013, was inspected by official inspection organization against radioactivity. As a result, NOT DETECTED was proved in limit detection 10Bq/kg. Safety was proved in OHKURAEN's green tea. Examination was done on dried tea leaves to prove high reliability. We will continue to manufacture safe and high quality green tea products.

## Summer harvested green tea 2012 is also SAFE!



Our green tea harvested in this June was inspected by official inspection organization against radioactivity. As a result, same as spring harvested green tea, safety was proved in OHKURAEN's green tea in two examination methods: One for drinking tea (Japanese standard) and one for dried tea leaves (International standard)

Please enjoy our hihg quality and safe green tea!

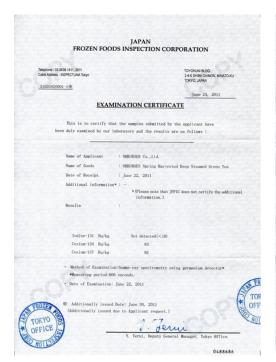
Our green tea is SAFE! (Also in 2012)





Our new green tea harvested in this May was inspected by official inspection organization against radioactivity. As a result, safety was proved in OHKURAEN's green tea in two examination methods: One for drinking tea (Japanese standard) and one for dried tea leaves (International standard) We will continue to manufacture safe and high quality green tea products in 2012 as well.

Our green tea is SAFE! (2011): Radiation test result of Ohkuraen green tea





Because we would like our customers to stop worrying about radiation influence as soon as possible, Ohkuraen asked to inspect our green tea leaves both Spring harvested and Summer harvested to official inspection organization.

As a result, the following were confirmed: The test results for both Spring harvested green tea leaves and Summer harvested green tea leaves were all under provisional control value. There is no effects to human body.

Date of examination: June 22, 2011

Name of goods: OHKURAEN Spring harvested deep steamed green tea Examination organization: Japan Frozen Foods Inspection Corporation

Name of applicant: OHKURAEN CO., LTD.

#### Inspection result

Sample name	(Unit : Bq/kg)			Detect
	Iodine- 131	Cesium- 134	Cesium- 137	limit
Spring harvested deep steamed green tea	Not detected	83	92	10

Method of examination: Gamma-ray spectrometry using germanium detector

Measuring period: 600 seconds

Note 1) Provisional control value for green tea products: 500Bq/kg

Note 2) Not detected ... Detect limit: 10Bq/kg

Date of examination: June 30, 2011

Name of goods: OHKURAEN Summer harvested deep steamed green tea Examination organization: Japan Frozen Foods Inspection Corporation

Name of applicant: OHKURAEN CO., LTD.

### Inspection result

Sample name	(Unit : Bq/kg)			Detect
	Iodine- 131	Cesium- 134	Cesium- 137	limit
Spring harvested deep steamed green tea	Not detected	52	55	10

Method of examination: Gamma-ray spectrometry using germanium detector

Measuring period : 600 seconds

Note 1) Provisional control value for green tea products: 500Bq/kg

Note 2) Not detected ... Detect limit: 10Bq/kg

## (Conclusion)

Spring harvested deep steamed green tea and Summer harvested deep steamed green tea produced by OHKURAEN are confirmed SAFE. The results of examination showed largely under the control value regulated with Food Sanitation Art by Government.

| HOME | OUR PRODUCTS | GIFT | OVERSEA STORES | Powder Tea Recipe | COMPANY PROFILE | WHAT'S NEW? | INFORMATION | TEA & CATECHIN |

ABOUT TEA | CUSTOMER' S VOICE | INQUIRY | HOW TO ACCESS | PRIVACY POLICY |

# OHKURAEN CO., LTD.

∓436-0113 901-4 KAKUWA, KAKEGAWA-SHI, SHIZUOKA-KEN, JAPAN TEL: +81-537-22-3615 FAX: +81-537-22-3648 Copyright©Kakegawa Green Tea Maker OHKURAEN. All Rights Reserved.

