## **SURAT KE SAHABAT PENGHARUNG USIA SESUDAH 70**

Didedikasikan ke ternyata sementara ini adalah anak beru Menteri, yang berinisiatif memesan produk inovatif get.fit.ac.id. Per hari ini, in sya Allah " creativ thinking dan analytical thingking" masih ok, tapi daya ingat berkurang. Kunci di mana lupa? Bahkan peci yang digunakan sesudah ibadah haji sering lupa. Bahkan ada 10 peci. Bukan karena alim tapi rambutnya dah putih. Dulu sih di cet, tapi selama pengobatan mata tidak boleh kena air. Dinikmati tanpa cet rambut dan kini menikmati pula pakai peci. Malas bersisir? Pakai peci saja. Ha, ha.



Assalamualaikum Wr.wb dan Mejuah – juah kita karina.

Sahabat, saya ingin menulis surat sesudah lama tidak berjumpa. Saya ingin belajar menyampaikan sesuatu dengan gaya surat . Maklumlah baru baru salah satu tulisan dikirim ke penerbit yang aktif menerbitkan buku dalam seri "ANTOLOGI" . Buku nya diberi judul "Surat untuk Sahabat". Tulisan itu diterima pula dan disitu saya belajar pula gaya anak muda mengirim surat.

Sahabat, pagi ini saya menulis di salah satu grup yang berjudul " MTM MOM!! ( Makan , Tidur, Membaca, Menulis, Olahraga, dan Mensyukuri ). Hastag ini lahir di masa life after 70 ketika kerja awalnya MAKAN TIDUR saja. Lalu kata Kalimbubu Perangin angin. Kalau Makan

Tidur itu orang sakit bang, ucapnya.



MANFAAT NYA SILATURAHIM.

Begitulah di acara Halal bil Halal Keluarga Muslim Karo, salah satu bebere kami, menyampaikan "tutur na" dan mengingatkan ayahanda dan orang tua beliau. Beliau jelaskan dengan rinci. Tapi maklumlah dah lansia, daya ingat berkurang. Tapi katanya di grup SMA Negeri Kabanjahe itu, ada anak berunya, Ginting Mergana.

Dilanjutkan cerita nya ya?

Pagi ini , 24.05.2024, hanya baru ditampilkan soal Makan dan Produk inovatif catechino50. Semasa menjelang remaja, di zaman itu "makan secara umum untuk hidup". Lauk sekedarnya. Cukup!! Saya tinggal di Kabanjahr, Tanah Karo, daerah subur dan adem sehingga disebut "TANAH KARO SIMALEM". SIMALEM PUNYA MAKNA YANG MENDALAM. SUKAR DILUKISKAN DENGAN KATA KATA.

Tapi, daerah yang kaya dan subur nya dn sayuran melimpah, sehingga

Masyarakat kurang menghargainya? Contoh, SELADA AIR/ KURMAPARIK. Saat itu ledekan" ADI KURMA

PARIK NGE PANGANTA", KUJA NGE BANCI PENGKEBETNA. Seandainya selada air yang makanan kita, sampai di mana petualangan hidupmu. Tapi, ketika 12 tahun di Aachen \_ Jerman, hanya untuk makan kurmaparik/ selada air saya harus naik bus atau mobil ke Belgia. Semasa di Malaysia, di daerah wisata terkenal itu, "GENTING HIGHLAND", sari kurmaparik/selada air diminum. Hal yang sama dengan LABU/ JAMBE. JAMBE NANDE LA RORAT. Ah. Tiba tiba terlupa. Hal yang sama dengan "GUNDUR". Ula bagi GUNDUR TERUH PAPAN. Tapi, saya menemukan makanan itu di menu sarapan pagi di hotel berbintang di China.

Begitulah sahabat, sesudah makan , saat pandemic itu saya " MEMBACA" . Kalau sewaktu remaja baca buku ' gratis" , di Jerman , karena mahasiswa bawa anak anak ke perpustakaan kota. Gratis!! Kini, klik google scholar, ribuan artikel ilmiah muncul. GRATIS!!

Begitulah sahabat, gambir makanan Nek Ribu saya diektraksi menjadi "KATEKIN" dan diuji di LAB untuk melihat derajat anti oksidannya. Ternyata sangat baik sekali. Itulah yang kami konsumsi selama masa pandemik. Kami uji produk itu dan produk turunannya di 21 hari Lintas Sumatera dan 1 minggu Lintas Jawa. Alhamdulliah kami sehat dan teruji. Cucu kami bertambah 3 di masa pandemic karena di rujukan tampak bahwa katekin berfungsi untuk kesuburan.

Oleh karena itu izinkan kami menampilkan apa yang dibaca antara lain . Itu dulu ya sahabat. Membaca salah satu resep saya menunda pikun. Dan kembali soal " MAKAN" . Per hari saya dan keluarah konsumsi produk sendiri itu. KALAU BUKAN SAYA DAN KELUARGA , SIAPA LAGI? Darwin Sebayang 24.05.2024

## Artikel Ilmiah Pendukung

Daniel R. Mangels, and Emile R. MohlerIII, Originally published23 Mar 2017 https://doi.org/10.1161/ATVBAHA.117.309048 Arteriosclerosis, Thrombosis, and Vascular Biology. 2017;37:757–763

Authors: Shaterzadeh-Yazdi, Hanieh; Farkhondeh, Tahereh; Samarghandian, Saeed

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a. The effects of catechins on related risk factors with type 2 diabetes: a review

https://medicaldialogues.in/neurology-neurosurgery/news/inflammatory-bowel-disease-linked-to-doubling-in-dementia-risk-67009

A Catechin-rich Beverage Improves Obesity and Blood Glucose Control in Patients With Type 2 Diabetes Tomonori Nagao , Shinichi Meguro, Tadashi Hase, Kazuhiro Otsuka, Masanori Komikado, Ichiro Tokimitsu, Takashi Yamamoto, Kunio Yamamoto

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Summary. Insulin resistance in patients with diabetes mellitus causes complications such as cardiovascular and renal diseases. Studies have shown that catechins can be effective in controlling hyperglycemia and preventing the complications of diabetes by improving insulin sensitivity and reducing the risk factors for Type 2 Diabetes Mellitus such as oxidative stress, dyslipidemia and obesity. The aim of the present study is a review of the studies conducted in the field of the effect of catechins on the improvement of the risk factors associated with Type 2 Diabetes Mellitus. This review study was conducted by searching in the databases of Science Direct, Scopus, PubMed and using the keywords, such as catechins, green tea, insulin resistance, diabetes mellitus, hyperglycemia, obesity, dyslipidemia and oxidative stress. In this study, articles published between the years 2000-2016, were used. The results of the review of the studies showed that the catechins and food containing them can improve

hyperglycemia, oxidative stress, dyslipidemia and obesity in patients with Type 2 Diabetes Mellitus. Key words: catechin, Diabetes Mellitus Type 2, dyslipidemia, obesity, oxidative stress

Type 2 diabetes

## Description

A chronic condition that affects the way the body processes blood sugar (glucose). With type 2 diabetes, the body either doesn't produce enough insulin, or it resists insulin. Symptoms include increased thirst, frequent urination, hunger, fatigue and blurred vision. In some cases, there may be no symptoms. Treatments include diet, exercise, medication and insulin therapy

b. Natural therapies assessment for the treatment of endometriosis

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Study question: Can resveratrol and epigallocatechin-3-gallate (EGCG) inhibit the growth and survival of endometriotic-like lesions in vivo in a BALB/c model of endometriosis, and in vitro in primary cultures of human endometrial epithelial cells (EECs)?

Summary answer: Resveratrol and EGCG exerted a potent inhibitory effect on the development of endometriosis in a BALB/c murine model and on the survival of EECs. What is known already: Endometriosis is a common condition associated with infertility and pelvic pain in women of reproductive age. Resveratrol and EGCG are two polyphenols with anticarcinogenic and antioxidant properties that have been proposed as natural therapies to treat endometriosis.

Study design, size, duration: Fifty-six 2-month-old female BALB/c mice underwent surgical induction of endometriosis. Treatments with resveratrol or EGCG started 15 days post-surgery and continued for 4 weeks. Human biopsies were taken with a metal Novak curette from the posterior uterine wall from 16

patients with untreated endometriosis and 15 controls who underwent diagnostic laparoscopy for infertility. materials, setting,

Methods: After the treatments, animals were sacrificed and lesions were counted, measured, excised and fixed.

Immunohistochemistry for proliferating cell nuclear antigen and CD34 was performed for cell proliferation and vascularization assessment in the lesions. The terminal deoxynucleotidyl transferase (TdT)-mediated dUTP nick-end labeling (TUNEL) technique was performed for apoptosis evaluation. Peritoneal fluid was collected to analyze vascular endothelial growth factor levels. Human EECs were purified from proliferative-phase endometrial biopsies and cultured. The effect of both polyphenols on cell proliferation was determined by a colorimetric assay using the CellTiter 96wAQueous One Solution Cell Proliferation Assay kit and on apoptosis by the TUNEL technique, using an In Situ Cell Death Detection Kit with Fluorescein. main results: In the mouse model, both treatments significantly reduced the mean number (P, 0.05 versus control) and the volume of established lesions (P, 0.05 versus control). Treatments consistently statistically significantly diminished cell proliferation (resveratrol P, 0.01 and EGCG P, 0.05, versus control), reduced vascular density (resveratrol P, 0.01 and EGCG P, 0.001, versus control) and increased apoptosis within the lesions (resveratrol P, 0.01 and EGCG P, 0.05, versus control). Both compounds induced reduction in human EEC proliferation (P, 0.05 versus basal) and increased apoptosis (P, 0.05 versus basal) in primary cultures. limitations: In vitro studies were only carried out in epithelial cells from human eutopic endometrium, wider implications of the findings: The present findings are promising and will assist the development of novel natural treatments for endometriosis.

Study funding: This study was supported by ANPCYT (PICT 6384 BID 1201 OC-AR) and CONICET (PIP 5471), Argentina. None of the authors has any conflict of interest to declare.

Key words: endometriosis / resveratrol / EGCG / human eutopic endometrium / BALB/c mice

- c. Manfaat lain dari katekin
- The Role Of Catechins In Cellular Responses To Oxidative Stress

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The Role of Catechins in Cellular Responses to Oxidative Stress

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Abstract: Catechins are polyphenolic compounds—flavanols of the flavonoid family found in a variety of plants. Green tea, wine and cocoa-based products are the main dietary sources of these flavanols. Catechins have potent antioxidant properties, although in some cases they may act in the cell as prooxidants. Catechins are reactive oxygen species (ROS) scavengers and metal ion chelators, whereas their indirect antioxidant activities comprise induction of antioxidant enzymes, inhibition of pro-oxidant enzymes, and production of the phase II detoxification enzymes and antioxidant enzymes. Oxidative stress and ROS are implicated in aging and related dysfunctions, such as neurodegenerative disease, cancer, cardiovascular diseases, and diabetes. Due to their antioxidant properties, catechins may be beneficial in preventing and protecting against diseases caused by oxidative stress. This article reviews the biochemical properties of catechins, their antioxidant activity, and the mechanisms of action involved in the prevention of oxidative stress-caused diseases. Keywords: catechin; ROS; cancer; cardiovascular diseases; neurodegenerative disorders

Review

Novel uses of catechins in foods

Author links open overlay panelYusufYilmaz

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Catechins are flavanols present in a variety of foods such as wine, tea, fruits and chocolate. Catechin, epicatechin and gallates of epicatechin are major catechins with dietary importance for human health. In recent years, catechins have been used as natural antioxidant in oils and fats against lipid oxidation, supplement for animal feeds both to improve animal health and to protect animal products, an antimicrobial agent in foodstuffs and a health functional ingredient in various foods and dietary supplements. This review outlines the novel uses of catechins in foods.

Catechins And Their Therapeutic Benefits To Inflammatory Bowel Disease

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Abstract: Catechins are natural polyphenolic phytochemicals that exist in food and medicinal plants, such as tea, legume and rubiaceae. An increasing number of studies have associated the intake of catechinsrich foods with the prevention and treatment of chronic diseases in humans, such as inflammatory bowel disease (IBD). Some studies have demonstrated that catechins could significantly inhibit the excessive oxidative stress through direct or indirect antioxidant effects and promote the activation of the

antioxidative substances such as glutathione peroxidases (GPO) and glutathione (GSH), reducing the oxidative damages to the colon. In addition, catechins can also regulate the infiltration and proliferation of immune related-cells, such as neutrophils, colonic epithelial cells, macrophages, and T lymphocytes, helping reduce the inflammatory relations and provide benefits to IBD. Perhaps catechins can further inhibit the deterioration of intestinal lesions through regulating the cell gap junctions. Furthermore, catechins can exert their significant anti-inflammatory properties by regulating the activation or deactivation of inflammation-related oxidative stress-related cell signaling pathways, such as nuclear factor-kappa B (NF-kB), mitogen activated protein kinases (MAPKs), transcription factor nuclear factor (erythroid-derived 2)-like 2 (Nrf2), signal transducer and the activator of transcription 1/3 (STAT1/3) pathways. Finally, catechins can also stabilize the structure of the gastrointestinal micro-ecological environment via promoting the proliferation of beneficial intestinal bacteria and regulating the balance of intestinal flora, so as to relieve the IBD. Furthermore, catechins may regulate the tight junctions (TJ) in the epithelium. This paper elaborates the currently known possible molecular mechanisms of catechins in favor of IBD.

Keywords: catechins; inflammatory bowel disease; oxidative stress; mechanisms; tight junction functionality

Human Salivary Tea Catechin Levels And Catechin Esterase Activities: Implication In Human Cancer Prevention Studies

## Abstract

Because of the possible application of tea in the prevention of oral and esophageal cancers, the salivary levels of tea catechins were determined in six human volunteers after drinking tea. Saliva samples were collected after thoroughly rinsing the mouth with water. After drinking green tea preparations equivalent to two to three cups of tea, peak saliva levels of (–)-epigallocatechin (EGC;  $1.7-43.9 \,\mu\text{g/ml}$ ), EGC-3-gallate (EGCG;  $4.8-22 \,\mu\text{g/ml}$ ), and (–)-epicatechin (EC;  $1.8-7.5 \,\mu\text{g/ml}$ ) were observed after a few minutes. These levels were 2 orders of magnitude higher than those in the plasma. The elimination half-life (t1/2) of the salivary catechins was  $10-20 \, \text{min}$ , much shorter than that of the plasma. Holding a tea solution in the mouth for a few minutes without swallowing produced even higher salivary catechin levels, but taking tea solids in capsules resulted in no detectable salivary catechin level. Holding an EGCG solution in the mouth resulted in EGCG and EGC in the saliva and, subsequently, EGC in the urine. The results suggest that EGCG was converted to EGC in the oral cavity, and both catechins were absorbed through the oral mucosa. A catechin esterase activity that converts EGCG to EGC was found in the saliva. The enzyme was likely of human origin, but the activity was not inhibited by common human esterase inhibitor. The present results suggest that slowly drinking tea is a very effective way of delivering rather high concentrations of catechins to the oral cavity, and then the esophagus.

Chung S. Yang, Mao-Jung Lee and Laishun Chen

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Apakah yang Anda jawab, bila seseorang dalam keadaan panik di situasi pandemik dan dokter yang menanganinya wafat akibat Covid-19, bertanya apa yang bisa Anda bantu? Aku tidak makan obat lagi. Itulah yang dialami ketika lintas timur Sumatera 21 Juli 2020 hingga 10 Agustus 2020 di salah satu kota bertemu dengan saudara. Berpikir sejenak, saya sampaikan ke menantunya. Anda seorang farmakolog dan apoteker. Apakah kenal dengan katekin? Kenal. Anda tahu bahwa katekin memiliki sifat anti oksidan yang sangat baik? Yah, dalam keadaan emergency, sepakatlah kami menggunakan G-Fit. Alhamdullillah, satu tugas berat selesai, lanjut lagi. Darwin Sebayang. 21 Oktober 2020