



ERVA DE TRIGO

**RESUMO DE ESTUDOS CIENTÍFICOS
DESTAQUE - SUPORTE ONCOLÓGICO**

BIOVIVOS = NUTRIENTES VIVOS E SUSTENTÁVEIS

ERVA DE TRIGO =
SANGUE VERDE



CLOROFILA
ESPECTRO E DENSIDADE
NUTRICIONAL
SISTEMA IMUNITÁRIO
ABSORÇÃO RÁPIDA

BIOVIVOS DE ERVILHA =
VITAMINA C +



CLOROFILA
115% DDR VITAMINA C
16,4X+ do que AGRIÃO
SNACK VIVO
BAIXAS CALORIAS

BIOVIVOS DE GIRASSOL =
TRIPTOFANO +



CLOROFILA
ANTI-OXIDANTES
E TRIPTOFANO
SNACK VIVO
BAIXAS CALORIAS



Sugestões
de Utilização



“Salada Feliz”
com Biovivos
de Girassol

“Saúde no Pão” com
Biovivos de Ervilha



A MELHOR MANEIRA DE COMER BIOVIVOS SÃO OS SUMOS, porque conseguimos comer uma grande quantidade numa refeição rápida, na forma mais eficiente para absorver todos os nutrientes.



- 1** Cortar e Triturar 1 vaso de Ervilha ou Erva de Trigo com fruta e água
- 2** Passar o líquido por um coador
- 3** Beber logo após preparação

SUMO TRITURADO É O MÉTODO MAIS PRÁTICO E RÁPIDO MAS O IDEAL É EXTRAIR COM UMA “MASTIGADORA LENTA A FRIO” para evitar o aquecimento e oxidação dos liquidificadores.

O HEALTHYJUICER DA LEXEN é a máquina recomendada pela BIOVIVOS.

É manual, ou seja não aquece e não tem partes eléctricas aumentando a durabilidade do produto. Para além de extrair mais sumo do que as máquinas eléctricas é também o juicer mais barato e sustentável do mercado!



ERVA DE TRIGO



- **Utilizar em Sumos SEPARAR A FIBRA**
- Uma das melhores fontes de fitonutrientes e clorofila que existe.
- Mais Antioxidantes, Vitaminas. Enzimas Aminoácidos, Minerais do que a maior parte do vegetais e frutos.

O “SUPRA SUMO” DA NUTRIÇÃO E NATUROPATIA

No caso da erva de trigo o Principal factor é o **espectro completo de nutrientes com minerais e vitaminas “raras”,** Ideal para fortalecer o sistema Imunitário (CENTRUM VIVO) e por ser a melhor fonte de **Clorofila VIVA = Sangue Verde.**



**1 VASO (50G)
= 1 SHOT DE
30ml = 1 Oz.**

Tabela aprox. para 1shot

Nutrition Facts

Serving Size 3 g

Amount Per Serving

Calories 15 Calories from Fat 0

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0%

Trans Fat

Cholesterol 0%

Sodium 0%

Total Carbohydrate 2g 1%

Dietary Fiber 1g 4%

Sugars 0g

Protein 1g

Vitamin A 30% • Vitamin C 12%

Calcium 1% • Iron 44%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

NutritionData.com

Comparação-Ferro-Espinafre

2 Vasos = 100g = 2 shots

Ferro em 2 shots

= 88%DDR

Ferro em 100g de espinafre

= 19%DDR

Conclusão :

4,6X mais ferro que espinafre

MAIS IMPORTANTE DO QUE ANÁLISES E CASOS, SÃO OS ESTUDOS CIENTÍFICOS QUE REVELAM BONS RESULTADOS

CONSIDERAÇÕES IMPORTANTES

1 – A ERVA DE TRIGO É UM EXTRACTO COMPOSTO (NÃO ISOLADO)

- Para elaborar estudos “válidos” para a comunidade médica e farmacêutica é necessário isolar uma molécula e descrever os processos de acção da mesma.
- A erva de trigo um é um extracto com um espectro elevado de compostos que actuam sinergicamente, tornando quase impossível definir todos os intervenientes e processos exactos que levam aos resultados benéficos do consumo regular.
- Qualquer cientista (ou farmacêutica) pode afirmar que os estudos existentes sobre o extracto aquoso (sumo) de erva de trigo não são válidos por não definirem os processos de acção específicos, sendo os mesmos impossíveis de obter.
- ESTE É O ARGUMENTO DAS FARMACÊUTICAS PARA INVIABILIZAREM A ACEITAÇÃO DE PRODUTOS NATURAIS COMO PRÁTICA REGULAR NA COMUNIDADE MÉDICA
- A justificação do medicamento, sintético ou natural é a validade, praticabilidade e posologia, mas acima de tudo, só existem, porque geram capital para investidores.
- E se houvesse uma solução barata, simples, acessível a todos e sustentável com resultados similares a medicamentos ? Algo assim sim, merece ser investigado !

2 - A ERVA DE TRIGO NÃO É PATENTEÁVEL = BAIXO INVESTIMENTO = ESTUDOS FRACOS

- Muito difícil angariar investimento elevado sem propriedade intelectual registada.
- Sem investimento elevado é muito difícil desenvolver estudos científicos de grande escala que são a base dos protocolos médicos que os profissionais de saúde são obrigados a seguir.
- Mesmo na medicina natural onde os estudos científicos são menos relevantes, o extracto de erva de trigo não é interessante por ter uma validade muito curta.

ERVA DE TRIGO E BIOVIVOS – NUTRIÇÃO SUSTENTÁVEL

**NUTRIÇÃO NÃO É SUPLEMENTAÇÃO – É UMA ALIMENTAÇÃO NATURAL E SUSTENTÁVEL
ALIMENTOS SÃO PRODUTOS QUE ALIMENTAM ! QUE NUTREM E NOS MELHORAM
PRODUTOS PROCESSADOS, USUALMENTE VICIAM E DEGRADAM O NOSSO CORPO/MENTE**

NUTRIENTES = ALIMENTOS NATURAIS INTEGRAIS / NÃO-PROCESSADOS

- Frescos Integrais = Sinergia entre nutrientes e “desconhecidos”
- Factor Vivo – Vitamina C reduz 80% em 12h após corte / 50h em amb.controlado
- Congelados – Perde poucos nutrientes / Efeito molecular? / Gasta muita energia
- Desidratados, triturados e embalados
 - filhos da validade de mercado / oportunistas / mas são práticos e naturais
- Suplementos, Isolados e Sintéticos são imprevisíveis e perigosos em alguns casos
 - Caso Benuron e Beta-Caroteno / Calcitrin / Centrums e amigos

NUTRIENTES E IMPACTO AMBIENTAL

- Produção : Espaço utilizado / Água e energia / Consumíveis / Trabalho / Risco
- Comercialização : Preparação / Embalamento / Transporte / Quebras
- Rentabilidade / Custo para o consumidor / Acessibilidade

NUTRIENTES SUSTENTÁVEIS = AGRICULTURA SUSTENTÁVEL DE VARIEDADES COMUNS

- Produção elevada por m² / Baixo consumo de água e energia / Poucos consumíveis
- Emissões reduzidas / Baixo risco de produção (quebras) / Trabalho contínuo e estável
- Preparação e embalamento simples e ecológico / Baixo custo e acessível a todos
- Produção local = menos emissões / mais qualidade / Economia Circular Descentralizada

ERVA DE TRIGO E BIOVIVOS – NUTRIÇÃO SUSTENTÁVEL

VITAMINA C - COMPARAÇÃO AGRIÃO E BIOVIVOS DE ERVILHA

O Agrião é um dos melhores vegetais que podemos comer. Nutritivo, Barato, Versátil Comum, produção/m² elevada e pouco exigente, consumo de água e energia normal

VARIÁVEL	AGRIÃO	BV-ERVILHA	NOTAS
Produçãokg/m ² /mês	1KG/m ² /mês	7,5kg/m ² /mês	média de 50g por vaso-chega às 100g
Pegada Hidrica L/kg	237L/kg	10L/kg	5L/m ² x15dias=75L/7,5kg = 10L/kg
Vitamina C mg/100g	4mg	69mg	17,25x mais vitamina C por 100g
Preço 100g	0,93€	3 €	2 vasos de 50g / 1 vaso chega às 100g
€ por mg Vitamina C	0,23€/mgVC	0,04€/mgVC	sem contar com "factor vivo"

Não contabilizado : Impacto da produção de sementes + Água para lavagem do vaso / Energia =

CONCLUSÃO : Usa 7,5x menos espaço e 23,7x menos água para produzir o mesmo peso

A Vitamina C nos Biovivos de Ervilha é 5,75X mais barata do que no agrião

Calculado a 50g/vaso / Duplicação de valores em vasos de 100g

BIOVIVOS : Passíveis de serem produzidos em qualquer local, ártico ou sahara, com materiais comuns e acessíveis, baixo consumo de água e energia, elevada produção/m², rápida com risco reduzido, criação de emprego regular e estável, preço acessível a todos.

ERVA DE TRIGO E BIOVIVOS – ESTUDOS CIENTÍFICOS (47ref.)

ESTUDOS SOBRE EXTRATO AQUOSO E ISOLADOS

- **COLITE** : X INVITRO / X ANIMAIS / X CLÍNICOS
- **CANCRO** : X INVITRO / X ANIMAIS / X CLÍNICOS
- **FIGADO** : X INVITRO / X ANIMAIS / X CLÍNICOS
- **TALASSEMIA** : X INVITRO / X ANIMAIS / X CLÍNICOS
- **HIPERLIPIDEMIA** : X INVITRO / X ANIMAIS / X CLÍNICOS
- **DIABETES /ARTRITE-OSTEOPOROSE / ALZHEIMER**

NOTA : AVEMAR

Extracto de ET Fermentado
 X IN VITRO
 X ANIMAIS
 X CLÍNICOS

PAÍS DATA	DOENÇA +REF	AUTOR /JORNAL	ESTUDO	IN/ANIM/HU	TIPO/DOSE	RESULTADOS / BENEFÍCIOS
EUA 1979	Clorofila (WG) Anti-Cancro	Chiu-Nan Lai	Chlorophyll: The active factor in wheat sprout extract inhibiting the metabolic activation of carcinogens in vitro	IN VITRO		...Alkaline hydrolysis of chlorophyll by replacing methyl and phytol esters with sodium or potassium results in chlorophyllins. The magnesium can be further replaced by other metals such as copper.... Chlorophyll has been determined to be the major active factor in wheat sprout extract that inhibits the mutagenic effect of carcinogens requiring metabolic activation...
ISRAEL 2002	Colite Ulcerosa	Ben Arya et al	Wheatgrass juice in the treatment of active distal ulcerative colitis	23	100ml de sumo ET (ou placebo) diariamente durante 1 mês em pacientes de colite ulcerosa	A randomized, double-blind, placebo controlled study Severity of rectal bleeding / reduced Disease activity index decreased. Wheat grass juice appeared effective and safe as a single or adjuvant treatment of active distal UC.
INDIA 2004	Talassemia Maior	Marwaha, R. et al	Wheatgrass Juice reduces transfusion requirements in patients with Thalassemia Major : A pilot study	Families	Families year1 = control Families year2=grow and use wheatgrass juice	In nearly all patients the mean interval between visits increased and the blood transfused decreased during the wheat grass period. The mechanism involved is unknown.
AUSTRALIA 2005	plantar fasciitis	Young et al	The effect of topical wheatgrass cream on chronic plantar fasciitis: A randomized, double-blind, placebo-controlled trial	80	80 pacientes - the wheatgrass cream contained 10% wheatgrass extract (Wheatgrass Active®, Level 2/55)	Conclusions: The topical application of wheatgrass cream is no more effective than a placebo cream for the treatment of chronic plantar fasciitis
INDIA 2006	ANÁLISE BIOACCESIBILIDADE	Kulkarni et al	Evaluation of bioaccessibility of some essential elements from wheatgrass (Triticum aestivum L.) by in vitro digestion method	IN VITRO	WGJ vs Tablets Vs	Melhor bioacessibilidade em erva de trigo fresco, comparando com comprimidos de erva de trigo em pó e sementes de trigo.

INDIA 2006	Anti-Oxidante	Kulkami et al		Ratos	100g de ET durante 15 dias	highest antioxidant property in both aqueous and ethanol extract, 250% higher potential in alcoholic as compared to aqueous extract
? 2006	Artrite Reumatoide Severa	Balint et al		15	Extracto de ET fermentado (Aveamar) 8,5g 2xdia com água	Ritchie index decreased & Health assessment questionnaire & morning stiffness showed significant improvement. Doses of steroids reduced in half of patients. It's anti-inflammatory properties exert a positive effect on bone and joint problems, reducing pain and swelling
AUSTRALIA 2006	Cancro da Mama	Wheat et al	Wheatgrass extract as a topical skin agent for acute radiation skin toxicity in breast radiation therapy: a randomised controlled trial	Clinical Report	Dr.Wheatgrass Skin Recovery Cream (Extracto de ET)	Reduces skin toxicity from radiotherapy. Low cost topical agents for management of acute radiation skin toxicity have the potential to offer enormous benefits to the breast cancer patient including; decreased acute and late morbidity, improved short and long term quality of life (QOL), improved tolerance and, therefore, success rate of treatment...
INDIA 2006	Cancro Terminal	Dey S., Sarkar et al	Effect of wheat grass juice in supportive care of terminally ill cancer patients—A tertiary cancer centre experience from India	400pessoas 6MESES 3ANOS	Fresh juice was prepared from the leaves and roots of 5-day-old wheatgrass, and 30 ml doses were administered daily for 6 months	The results in 348 patients, after exclusion of 50 patients requiring transfusion support, were significant improvements in haemoglobin, total protein and albumin levels, and a performance status enhanced from 50% to 70% on the Karnovsky Scale (this runs from 100 to 0, where 100 is “perfect” health and 0 is death.) The authors concluded that wheatgrass juice is an excellent alternative to blood transfusion.
INDIA 2007	Talassemia Intermédia	Mukhuopadhy et al ?	The role of iron chelation activity of wheat grass juice in blood transfusion requirement of intermediate thalassaemia	200	30ml de sumo ET fresco de plantas com 6 semanas, tomado durante 6 meses	It is an effective alternative to blood transfusion in thalassemia intermedia patients The use of orally consumed wheatgrass juice improved hemoglobin values in patients with intermediate thalassemia. It also possibly reduced the need for blood transfusions. Wheatgrass juice dose-dependently chelates iron, which could be helpful in patients who require frequent transfusions.
INDIA 2007	Wheatgrass e Spirulina	Letter to the editor	WHEAT GRASS SUPPLEMENTATION DECREASES OXIDATIVE STRESS IN HEALTHY SUBJECTS: A COMPARATIVE STUDY WITH SPIRULINA	3 grupos de 10	All three supplements were given as a dry powder for 30 days, at 500 mg twice daily, in capsules	this study showed that wheat grass is a better antioxidant as compared to Spirulina

INDIA 2007	VÁRIAS DOENÇAS	Premaku mari, S ET AL	EFFECT OF SUPPLEMENTATION OF WHEAT GERM, WHEAT BRAN AND WHEAT GRASS TO SUBJECTS WITH SPECIFIC HEALTH ISSUES		VÁRIAS QUANTIDADES	It could be concluded from the study that wheat germ, bran and grass are having beneficial effect in alleviating specific health issues like diabetes obesity and could be used as an immune booster in low immunity. In this ever changing scenario of emerging varieties of disease, existence of medical assistance without any side effect is much sought after remedy
ISRAEL 2007	Cancro da Mama	Bar Sela et al (2007)	Wheat Grass Juice May Improve Hematological Toxicity Related to Chemotherapy in Breast Cancer Patients: A Pilot Study	60	16ml de sumo ET fresco, diariamente durante os primeiros 3 ciclos de quimioterapia.	it was found that WGJ taken during FAC chemotherapy may reduce myelotoxicity, dose reductions, and need for GCSF support, without diminishing efficacy of chemotherapy. These preliminary results need confirmation in a phase III study
RUSSIA 2008	Melanoma Avançado	Demidov et al	Wheat Germ Extract (Avemar™) Improves Survival of High-Risk Skin Melanoma Patients	52 STAGE III 7years	Cancer Treatment + one group also consumed an oral fermented wheat germ product once daily for up to 12 months	Wheat germ treatment resulted in an average of 66.2 months overall survival compared to 44.7 months in the placebo group. Fermented wheat germ product was able to improve progression-free and overall survival in patients with Stage III melanoma as an adjuvant to standard cancer treatment.
? 2008 x	Oxigénio no Sangue - Descanso	M Pascuzzi, Chambers	Does Wheatgrass Juice Oxygenate the Blood of Resting Individuals?	30	2-oz (59-mL) serving of juice. Fresh or frozen !!!	Crested wheatgrass (<i>Agropyron Cristatum</i> , (L) Gaertn, Poaceae)???-If the juice was consumed within one hour, it remained fresh. Otherwise, it was frozen and thawed immediately prior to consumption-A linear fit of this data yields a slope of 0.0032% oxygenation/minute. Wheatgrass juice does not significantly oxygenate the blood within 75 minutes of ingestion for resting, healthy participants.
? 2008 x	Oxigénio no Sangue - Exercício	M Handzel et al	Monitoring the Oxygenation of Blood During Exercise After Ingesting Wheatgrass Juice	30	2-oz (59-mL) serving of juice within 30 minutes of consumption for each wheatgrass trial.	Though only by a small amount, participants sustained more oxygen (an average of 0.31%) during their wheatgrass trial exercise Post-exercise SpO2 was an average of 0.26% higher for the wheatgrass trials during the 8 min recovery period This study indicates that this natural pharmaceutical aids in blood oxygenation when the body is depleted of oxygen. However, this study was not a blind study; participants knew they received wheatgrass juice and not a placebo. Further research is necessary in order to account for the psychological aspect of wheatgrass juice as an ergogenic aid.

INDIA 2008	Talassemia Maior	Marwaha et al ?		38	100ml de sumo ET Fresco, durante 6meses	Wheat grass juice had beneficial effect on transfusion requirements in 50% patients of B-thalassemia major
INDIA 2009	B-Talassemia Maior	Choudary et al (2009)	Effect of wheat grass therapy on transfusion requirement in patients with B-thalassemia major	53	Comprimidos de ET de 100mg/kg em doses divididas por 6 meses e 200mg/kg durante 1 ano	No beneficial effect was observed
INDIA 2009	Síndrome mielodisplásica / talassemia	Mukhopadhyay. S. Et al	The role of iron chelation activity of wheat grass juice in patients with myelodysplastic syndrome	20 severe	30 mL of fresh wheatgrass juice made from 5-7 day old leaves daily for 6 months	This effect was comparable to a medically prescribed iron chelator, desferrioxamine. The authors concluded that "wheatgrass juice is an effective iron chelator, and its use in reducing serum ferritin should be encouraged in myelodysplastic syndrome and other diseases where repeated blood transfusion is required
INDIA 2010	Talassemia Maior em Crianças	Singh et al (2010)		40	Wheatgrass tablets→2-3, 6, 8 tablets/day in divided doses in children aged 1-3 yrs, 4-8 yrs & > 8 yrs respectively	Increases Hb level, increases interval b/w blood transfusions,decreases amount of blood transfused.
TURQUIA 2010	Cancro leucemia	Oya sena aydos et al	Antiproliferative, apoptotic and antioxidant activities of wheatgrass (Triticum aestivum L.) extract on CML (K562) cell	IN VITRO		Conclusion: Wheatgrass extract has an antioxidant activity, inhibits proliferation of leukemia cells, and induces apoptosis; thus, this finding may represent a novel therapeutic approach for the treatment of CML.
INDIA 2011	Cholesterol hiperlipidemia atherosclerosis	Kothari S et al	Hypolipidemic effect of fresh Triticum aestivum (Wheat) grass juice in hypercholesterolemic rats. Acta Poloniae Pharmaceutica - Drug Research	RATS		in comparison to atorvastatin, GJ administration at the dose of 10 mL/kg resulted in comparable decrease of TC, LDL-C, TG and VLDL-C levels ($p > 0.05$). Fecal cholesterol excretion was significantly ($p < 0.05$) enhanced. The results of present study revealed hypolipidemic effect of Triticum aestivum GJ in hypercholesterolemic rats by increasing fecal cholesterol excretion. Fresh GJ could have potentially beneficial effect in atherosclerosis associated with hyperlipidemia.

INDIA 2011	CANCRO DE PELE	Arya et al	Chemoprevention by Triticum Aestivum of Mouse Skin Carcinogenesis Induced by DMBA and Croton Oil - Association with Oxidative Status	RATOS	wheat grass leaf extract at a dose level of 20 ml/kg body weight per day at pre, peri, and post-initional phases	In conclusion, results of the present study suggest that T.aestivum leaves extract affects liver enzyme activities as well as lipid per oxidation and has modulatory effect on the two stage skin carcinogenesis and exhibit chemopreventive activity, which may be due to its pharmacological properties.
INDIA 2011	diabetes mellitus	Shirude Anup Ashok	PHYTOCHEMICAL AND PHARMACOLOGICAL SCREENING OF WHEATGRASS JUICE (TRITICUM AESTIVUM L.)	ANALISE RATOS	DIVERSE	Chlorophyll is water soluble. This fact resulted in water soluble extractives to be about 71.1% and the alcohol soluble fraction was found to be just 9.2%.The results are satisfactory and we can say that wheatgrass can prevent occurrence of hypoglycemic shocks. Antioxidant activity of the wheatgrass juice was compared with the standard drug ascorbic acid.
MALASIA 2011	Cancro leucemia	Noorjahan banu alitheen et al	Cytotoxic effects of commercial wheatgrass and fiber towards human acute promyelocytic leukemia CELLS (HL60)	IN VITRO		This current study has effectively demonstrated that these food supplements have a good anti-leukemia potential with less or no toxic effects towards healthy immune system. Wheatgrass and fiber methanol extract have successfully exhibited to be cytotoxic towards HL60 cell lines without causing toxicity towards normal human PBMC.
INDIA 2012	Cancro Laringe	Janki Bhulabhai Patel et al	An in vitro study of anticancer activity of triticum aestivum on hep2 cells of human epithelioma of larynx	IN VITRO	methanolic extract of Triticum aestivum	The present study concluded that the methanolic extract of Triticum aestivum has shown a remarkable anticancer activity against the experimental cells namely HEp-2 (human epithelioma of larynx) cells. This holds great promise for future research in human beings. The anticancer property of Triticum aestivum will provide an useful information in the possible application in the treatment of cancer and prevention.
INDIA 2013	Figado Alcool Stress Oxidativo	Varalakshmi Durairaj, et al	Hepatoprotective Role of Wheatgrass on Alcohol and ΔPUFA-Induced Oxidative Stress	Ratos	?	We conclude that wheatgrass protects the liver against alcohol and ΔPUFA induced oxidative stress.
INDIA 2013	Figado Protecção	G. Jain* and A. Argal	Hepatoprotective potential of young leaves of triticum aestivum linn.against ccl4 induced hepatotoxicity	Ratos	?	The studies indicated that the recovery of liver from CCl4 damage after the treatment was significant.

INDIA 2013	OSTEOPOROSIS / CORTICOIDES	Banji et al	Role of Triticum aestivum aqueous extract in glucocorticoid induced osteoporosis in rats	Ratos	não copia	Maintenance of Calcium homeostasis, formation of collagen and scavenging of free radicals can plausibly be the mode of action of aqueous extract of T. aestivum thereby combating osteoporosis induced by glucocorticoides.
INDIA 2013	DIABETES ANTI-OX	Yogesh Mohan, et al	Antidiabetic and Antioxidant Properties of Triticum aestivum in Streptozotocin-Induced Diabetic Rats	Ratos	Ethanol extracts of Triticum aestivum at doses of 100 mg/kg body weight were administered orally for 30 days	A significant decrease in the levels of lipid peroxides, superoxide dismutase, and glutathione peroxidase and increase in the levels of vitamin E, catalase, and reduced glutathione were observed in Triticum aestivum treated diabetic rats. Thus, from this study we conclude that ethanolic extract of Triticum aestivum exhibited significant antihyperglycemic, hypolipidemic, and antioxidant activities in streptozotocin-induced diabetic rats.
INDIA 2014	ALZHEIMER	Bitra et al	Effect of wheat grass powder on aluminum induced Alzheimer's disease in Wistar rats	Ratos	wheat grass (100 mg/kg, p.o.), Wistar rats were administered it for 28 d along with aluminum chloride	Results: The major finding of this study is that aluminum enhanced oxidative stress. Wheat grass showed a significant improvement in reduction of this oxidative stress by reduction of malondialdehyde levels and enhancement of superoxide dismutase and catalase... Conclusions: The present study clearly demonstrated the beneficial effects of wheat grass that shows good antioxidant properties, and this remarkable effect of wheat grass may act as a key to treat Alzheimer's disease.
INDIA 2014	DIABETES	Shakya ET AL	Hypoglycaemic role of wheatgrass and its effect on carbohydrate metabolic enzymes in type II diabetic rats	Ratos	variable	In conclusion, WG treatment showed an improvement in glycaemic control in diabetic rats. The effect was almost equal to the standard drug, glibenclamide. These results suggest that WG is effective in reducing the blood glucose levels in diabetic rats. Being a natural product, it could be a potential safe drug for the treatment of diabetes.
INDIA 2015	CANCER ANTI-OX	Priyabrata Das et al	Antioxidative and anticarcinogenic activities of methylphenanthroline, isolated from wheat grass (Triticum aestivum Linn.)	IN VITRO	methylphenanthroline, isolated from wheat grass	The assay has further been corroborated by the apoptosis study, which has also demonstrated for the first time its antitumour effect on human cancer cells. Iron-binding affinity of MPa also indicates its use as an iron chelator... These findings have provided evidence for the traditional use of the wheat grass plant in the treatment of cancers, oxidative stress and iron overloaded disorders.

INDIA ?	CANCRO ORAL	Gore RD et al	effect of the aqueous wheat grass extract on Oral Squamous Cell Carcinoma (OSCC) cell line by MTT	IN VITRO	Extracto Aquoso	The aqueous extract of wheatgrass has an inhibitory effect on the oral cancer cell line proliferation.
ISRAEL 2015	REVIEW	Bar-Sela G	The Medical Use of Wheatgrass: Review of the Gap Between Basic and Clinical Applications	META	GERAL	However, all the trials were small and a number of methodological problems arose. No adverse events of wheatgrass have been reported, although some forms pose problems of tolerability. The popularity of wheatgrass continues to grow. Nevertheless, the advantages seen in the clinical trials need to be proved in larger studies before clinical recommendations for the public can be given.
TAIWAN 2015	KOMBUCHA	Sun et al	Effects of blending wheatgrass juice on enhancing phenolic compounds and antioxidant activities of traditional kombucha beverage	ANÁLISE	The highest antioxidant activity was obtained using a 1:1 (v/v) black tea decoction to WGJ ratio and 3 days of fermentation	The results showed that the total phenolic and flavonoid contents and antioxidant activity of the modified kombucha were higher than those of traditional preparations. All WGJ-blended kombucha preparations were characterized as having higher concentrations of various phenolic compounds
INDIA 2016 X	DIABETES	Choudhary, M et al	Effect of supplementation of wheat grass (<i>Triticum aestivum</i> L.) powder on blood glucose level of selected diabetic subjects	30 in 2 groups of 15	of 3 g of wheat grass powder was given daily to the subjects of experimental group for 60 days	30 noninsulin dependent diabetic – 2 groups of 15 / 60 days / supplementation of wheat grass powder for two months resulted in reducing the blood glucose level of diabetic subjects therefore being a natural product; wheat grass could be considered as effective measure for management of diabetes mellitus.
BRASIL 2016	Mielospressão e Stress Oxidativo	Gustavo Forlani Soares,	...avaliação do balanço oxidativo e parâmetros hematopoiéticos de ratas submetidas a carboplatina e tratadas com extrato aquoso de <i>Triticum aestivum</i> ...	RATOS	ET seco, extraído, liofilizado	Conclui-se que o extrato aquoso de trigo é eficaz na redução do impacto mielossupressor e do estresse oxidativo causado pela carboplatina.
INDIA 2016	IRON OVERLOAD DISEASES	Das et al	Mugineic acid, active ingredient of wheat grass: an oral novel hexadentate iron chelator in iron overloaded diseases	ratos	Várias Doses - WGE + Mugeinic Acid	The results are highly comparable with known iron chelator ICL670. WHE and purified mugineic acid, both seem to have significant prospect to be the cheap, non-toxic, hexadentate and oral therapeutic agents to prevent or alleviate toxic iron overload in patients.

Vários Estudos	CARDIO	REVIEW	Wheatgrass as cardio protective and anti-hyperlipidemic agent	Ratos	Várias Doses	An animal study by Kothari et al. found that wheatgrass reduced total cholesterol, LDL, bad cholesterol, and triglyceride levels in rats treated with wheatgrass juice. Triglyceride levels fell by 38 percent in rats given the highest dose of the juice, 10 ml/kg consumed orally once daily for 21 days, which is equivalent to the results achieved by the common cholesterol lowering medication, atorvastatin
	COLESTEROL / ESTANINAS					A study by Sethi et al found that supplementation with wheatgrass in subjects consuming high-fat diets resulted in the improvement of blood cholesterol levels. the beneficial role of wheatgrass in ameliorating hyperlipidemia and the associated oxidative stress has also been reported [32, 33].
INDIA 2017	TENSÃO ARTERIAL COLESTEROL MENOPAUSA	Kumar et Al	Impact of Wheatgrass (Triticum aestivum L.) Supplementation on Atherogenic Lipoproteins and Menopausal Symptoms in Hyperlipidemic South Asian Women – A Randomized Controlled Study		Fifty-nine hyperlipidemic women were randomized into control (n = 30) and intervention groups (n = 29). Intervention group was administered 3.5 g of freeze-dried wheatgrass powder in encapsulated form daily for 10 weeks, while the control group received no intervention	Conclusions Supplementation with freeze-dried wheatgrass powder at a dosage of 3.5 g per day for 10 weeks appears to have a positive effect on atherogenic lipid fractions, especially on Apo B, TC, and TAG, in hypercholesterolemic women. Wheatgrass also seems to marginally improve vasomotor and somatic and psychological symptoms of menopause. However, without adequate physical activity, wheatgrass might not be able to retain the protective Apo A levels. Consequently, wheatgrass appears to be a promising holistic therapeutic supplement for menopausal women that can confer health benefits to maintain and improve their cardiovascular, metabolic, and reproductive systems. This is the first in vivo human study reporting the effects of freeze-dried wheatgrass on the atherogenic lipoproteins, inflammation, blood sugar, and menopausal symptoms.
INDIA 2017	CANCRO BOCA	Rucha Diwakar GoRe1 ET AL	Wheatgrass: Green Blood can Help to Fight Cancer (ORAL CARCINOMA)	IN VITRO		results: A 41.4% of OSCC cell inhibition was observed at 1000 µg/ml dilution of aqueous wheatgrass extract in 24 hours. conclusion: The aqueous extract of wheatgrass has an inhibitory effect on the oral cancer cell line proliferation.

2017 REP.COREIA	FIGADO - PROTECÇÃO CANCRO	Rajoria et al	EVALUATION OF ANTIPROLIFERATIVE AND HEPATOPROTECTIVE EFFECTS OF WHEAT GRASS (TRITICUM AESTIVUM)	IN VITRO e ratos	comparação de extractos	Our findings clearly demonstrate that <i>T. aestivum</i> has a significant pharmacological potential that might be used for antiproliferative and hepatoprotective purposes.
2017 REP.COREIA	FIGADO - PROTECÇÃO INFLAMAÇÃO	Oh et al	Triticum aestivum Ethanolic Extract Improves NAFLD in Mice Fed a CholineDeficient or High-Fat Diet	IN VITRO e ratos		... improved serum liver enzyme activities and liver inflammation ... improved blood lipid profiles, liver inflammation score, steatosis score, and obesity... effectively improved NAFLD in mice through a mechanism that improved insulin resistance and lipid metabolism,... improve liver health, overall metabolic syndrome, and obesity
INDIA 2017	GEL DE RECUPERAÇÃO DE FERIDAS	Govindarajan et al	Fabrication of Hybrid Collagen Aerogels Reinforced with Wheat Grass Bio-Actives as Instructive Scaffolds for Collagen Turnover and Angiogenesis for Wound Healing Applications	Análise de propriedades + in vivo ?	Análise de propriedades +	The outcome of the present study confirms that the functionalization of nutraceutical with collagen renders excellent bio-availability and bio-compatibility necessary for wound healing and angiogenesis... Further the combination of wheat grass and collagen cumulatively act as instructive scaffolds with good anti-microbial properties for collagen turn over and angiogenic response for enhanced wound healing.
2017 QUÉNIA	REVIEW	Ougtu et al	Wheat Grass: A Functional Food	Análise	Análise e enquadramento	Given the health value of wheat grass, its short production period, low nutritional requirement and ability to grow in different geographical areas, the crop is a useful tool for fighting malnutrition, unemployment, and raise communities' income through its mass production and commercialization. Moreover, with massive malnutrition in Sub-Saharan Africa, wheat grass can fight silent-malnutrition and be used as a functional food against several health conditions.
INDIA 2018	TALASSEMIA A CRIANÇAS	2018 Mutha et al. Cureus	Efficacy and Safety of Wheat Grass in Thalassemic Children on Regular Blood Transfusion	69	69 crianças - 8 a 12 comprimidos por dia	Conclusion: Wheatgrass appears to play a promising role in children with thalassemia receiving chronic blood transfusions.

ERVA DE TRIGO

ONCOLOGIA

ERVA DE TRIGO – ESTUDOS CIENTÍFICOS – ONCOLOGIA

IN VITRO

TURQUIA 2010 X	Cancro leucemia	Oya sena aydos et al	Antiproliferative, apoptotic and antioxidant activities of wheatgrass (<i>Triticum aestivum</i> L.) extract on CML (K562) cell	IN VITRO		Conclusion: Wheatgrass extract has an antioxidant activity, inhibits proliferation of leukemia cells, and induces apoptosis; thus, this finding may represent a novel therapeutic approach for the treatment of CML.
MALASIA 2011 X	Cancro leucemia	Noorjahan banu alitheen et al	Cytotoxic effects of commercial wheatgrass and fiber towards human acute promyelocytic leukemia CELLS (HL60)	IN VITRO		This current study has effectively demonstrated that these food supplements have a good anti-leukemia potential with less or no toxic effects towards healthy immune system. Wheatgrass and fiber methanol extract have successfully exhibited to be cytotoxic towards HL60 cell lines without causing toxicity towards normal human PBMC.
INDIA 2012 x	Cancro Laringe	Janki Bhulabhai Patel et al	An in vitro study of anticancer activity of <i>triticum aestivum</i> on hep2 cells of human epithelioma of larynx	IN VITRO	methanolic extract of <i>Triticum aestivum</i>	The present study concluded that the methanolic extract of <i>Triticum aestivum</i> has shown a remarkable anticancer activity against the experimental cells namely HEp-2 (human epithelioma of larynx) cells. This holds great promise for future research in human beings. The anticancer property of <i>Triticum aestivum</i> will provide a useful information in the possible application in the treatment of cancer and prevention.
INDIA 2015	CANCRO E ANTI-OX	Priyabrata Das et al	Antioxidative and anticarcinogenic activities of methylpheophorbide a, isolated from wheat grass (<i>Triticum aestivum</i> Linn.)	IN VITRO	methylpheophorbide a, isolated from wheat grass	The assay has further been corroborated by the apoptosis study, which has also demonstrated for the first time its antitumour effect on human cancer cells. Iron-binding affinity of MPa also indicates its use as an iron chelator. The findings provide evidence for the potential use of wheat plant in the treatment of cancer
INDIA ?	CANCRO ORAL	Gore RD et al	effect of the aqueous wheat grass extract on Oral Squamous Cell Carcinoma (OSCC) cell line by MTT	IN VITRO	Extracto Aquoso	The aqueous extract of wheatgrass has an inhibitory effect on the oral cancer cell line proliferation.

ERVA DE TRIGO – ESTUDOS CIENTÍFICOS – ONCOLOGIA

ANIMAIS

INDIA 2011	CANCRO DE PELE	Arya et al	Chemoprevention by Triticum Aestivum of Mouse Skin Carcinogenesis Induced by DMBA and Croton Oil - Association with Oxidative Status	RATOS	wheat grass leaf extract at a dose level of 20 ml/kg body weight per day at pre, peri, and post-inital phases	In conclusion, results of the present study suggest that T.aestivum leaves extract affects liver enzyme activities as well as lipid per oxidation and has modulatory effect on the two stage skin carcinogenesis and exhibit chemopreventive activity, which may be due to its pharmacological properties.
BRASIL 2016	Mielospre ssão e Stress Oxidativo	Gustavo Forlani Soares,	...avaliação do balanço oxidativo e parâmetros hematopoiéticos de ratas submetidas a carboplatina e tratadas com extrato aquoso de Triticum aestivum...	RATOS	ET seco, extraído, liofilizado	Conclui-se que o extrato aquoso de trigo é eficaz na redução do impacto mielossupressor e do estresse oxidativo causado pela carboplatina.

ESTUDOS CLÍNICOS

INDIA 2006	Cancro Terminal	Dey S., Sarkar et al	Effect of wheat grass juice in supportive care of terminally ill cancer patients—A tertiary cancer centre experience from India	400 pessoas 6 MESES 3 ANOS	Fresh juice was prepared from the leaves and roots of 5-day-old wheatgrass, and 30 ml doses were administered daily for 6 months	The results in 348 patients, after exclusion of 50 patients requiring transfusion support, were significant improvements in haemoglobin, total protein and albumin levels, and a performance status enhanced from 50% to 70% on the Karnovsky Scale (this runs from 100 to 0, where 100 is “perfect” health and 0 is death.) The authors concluded that wheatgrass juice is an excellent alternative to blood transfusion.
ISRAEL 2007	Cancro da Mama	Bar Sela et al (2007)	Wheat Grass Juice May Improve Hematological Toxicity Related to Chemotherapy in Breast Cancer Patients: A Pilot Study	60	16ml de sumo ET fresco, diariamente durante os primeiros 3 ciclos de quimioterapia.	it was found that WGJ taken during FAC chemotherapy may reduce myelotoxicity, dose reductions, and need for GCSF support, without diminishing efficacy of chemotherapy. These preliminary results need confirmation in a phase III study

ERVA DE TRIGO – ESTUDOS CIENTÍFICOS – ONCOLOGIA

ANEMIA / CANCRO TERMINAL – 2006 - Chandra Bose Cancer Research Institute in India

Effect of wheat grass juice in supportive care of terminally ill cancer patients

PATIENTS - 400 terminally ill solid-organ cancer patients (age range, 22 – 87 years)

PRODUCT - Fresh juice was prepared from the leaves and roots of 5-day-old wheatgrass,

DOSAGE - 30 ml doses were administered daily for 6 months - examined over 3 years.

BACKGROUND

- **Anemia is a common occurrence in patients undergoing chemotherapy** to treat cancer, though it may also occur simply as a consequence of long-standing cancer
- The study focused on changes in the haemoglobin level, serum protein and performance status, in particular noting the capacity of wheatgrass juice to improve quality of life.

RESULTS : ...The mean values for haemoglobin, total protein & albumin were improved significantly ...White blood cell & platelet count were same in both the cases. The performance status was improved from 50% to 70% (Karnofsky) after wheat grass treatment.

CONCLUSION : We concluded that **wheat grass juice is an effective alternative of blood transfusion**. Its use in terminally ill cancer patients should be encouraged. No significant financial relationships to disclose

ERVA DE TRIGO – ESTUDOS CIENTÍFICOS – ONCOLOGIA

CANCRO / HEMOGLOBINA – 2007 – ISRAEL - Gil Bar-Sela et al

Wheat Grass Juice May Improve Hematological Toxicity Related to Chemotherapy in Breast Cancer Patients: A Pilot Study / NUTRITION AND CANCER, 58(1), 43–48

PATIENTS - 60 patients with breast carcinoma on chemotherapy

PRODUCT - frozen wheat grass - juice divided into daily doses of 60 cc.

DOSAGE – 60 cc of WGJ orally daily during the first three cycles of chemotherapy

Patients were asked to drink one dose every morning on an empty stomach

BACKGROUND

Myelotoxicity induced by chemotherapy may become life-threatening. Neutropenia may be prevented by granulocyte colony-stimulating factors (GCSF), and epoetin may prevent anemia, but both cause substantial side effects and increased costs.

RESULTS

..Hemoglobin ...showed a median reduction of 1.2 g/dL in arm A... 1.9 g/dL in arm B

..statistically significant reduction in the rate of chemotherapy induced toxicity (17%vs47%)

..the effect of WGJ was most profound with regard to hematological toxicity (17% vs 37%)

..**most important ...reduction in neutropenic fever events and in neutropenic infections**

..Side effects related to WGJ were minimal, including worsening of nausea in six patients, causing cessation of WGJ intake (10%)

In conclusion, it was found that **WGJ taken during FAC chemotherapy may reduce myelotoxicity, dose reductions, and need for GCSF support, without diminishing efficacy of chemotherapy.** These preliminary results need confirmation in a phase III study.

...In a test for amino acid levels, comparing fresh and frozen juices, a **20% reduction was found in the frozen juice** (5). Vitamins levels were not tested but they are probably also reduced in the frozen extract

... Nutrition support such as WGJ is **very cheap, without any need for the involvement of the pharmaceutical industry**. To the best of our knowledge, there are no nutrition recommendations regarding the prevention of chemotherapy-induced toxicity.

The first step in this direction was taken in the current study (2007)

Table 1. Levels of Vitamins and Minerals in 100 Ml of Wheat Grass Juice

Vitamins & minerals	Amount (mg/100 ml)
Ascorbic acid	25.2
Dehydro ascorbic acid	7.6
Vitamin E	8.5
Carotene	2.43
Potassium	57
Phosphorus	8.2
Calcium	2.4
Sulfur	2.37
Magnesium	1.7
Sodium	1.42
Aluminum	0.31
Zinc	0.02
Copper	0.007

(Copied with permission from Dr. Pnina Bar-Sella, Ref. 5).

Table 2. The Contents of Amino Acids in Wheat Grass Juice

Amino acid	Amount ($\mu\text{g/ml}$)
Aspartic acid	510.3
Threonine	105.8
Serine	201.8
Asparagine	3039.6
Glutamine	200.6
Proline	33.6
Glycine	20.6
Alanin	166.4
Valine	272.1
Methionine	14.0
Isoleucine	145.1
Leucine	101.0
Tyrosine	121.8
Phenylalanine	200.9
Lysine	174.5
Histidine	232.2
Tryptophan	160.1
Arginine	252.9

(Copied with permission from Dr. Pnina Bar-Sella, Ref. 5).

ERVA DE TRIGO – ESTUDOS CIENTÍFICOS – MENOPAUSA

**MENOPAUSA / HIPERLIPIDÉMIA – INDIA 2017 - Journal of Dietary Supplements
Impact of Wheatgrass (*Triticum aestivum* L.) Supplementation on Atherogenic
Lipoproteins and Menopausal Symptoms in Hyperlipidemic South Asian Women
A Randomized Controlled Study ,**

PATIENTS : Fifty-nine hyperlipidemic women were randomized...

PRODUCT : freeze-dried wheatgrass powder in encapsulated form

DOSAGE : 3.5 g ... daily for 10 weeks ...

Results:

... The intervention group experienced a reduction of 5.4% in total cholesterol (TC), 4.4% in low-density lipoprotein cholesterol, and 9.5% in triacylglycerols (TAG); however, high-density lipoprotein (HDL) also reduced by 6% following 10 weeks of intervention. ...levels of **TC, TAG, and Apolipoprotein B (Apo B) were significantly lower in the experimental group** compared with the control group ($p = 0.043, 0.045, \text{ and } 0.016$, respectively).

...menopausal symptoms saw nonsignificant reductions: vasomotor, 42%; somatic, 33%; and psychological, 50%, while urogenital symptoms remained unaltered.

wheatgrass appears to be a promising holistic therapeutic supplement for menopausal women that can confer health benefits to maintain and improve their cardiovascular, metabolic, and reproductive systems. This is the first in vivo human study reporting the effects of freeze-dried wheatgrass on the atherogenic lipoproteins, inflammation, blood sugar, and menopausal symptoms

Conclusions: Wheatgrass supplementation at a dose of 3.5 g per day for a period of 10 weeks results in **significant reductions in Apo B fraction, TC, and TAG without significantly reducing the HDL cholesterol.**

Table 4. Post-intervention atherogenic and inflammatory parameters after adjusting for baseline values (mean + SE).

Parameter	Control group (baseline adjusted post-test mean ± SE) [#]	Wheatgrass group (baseline adjusted post-test mean ± SE) [#]	p value	Effect size (Cohen's d)
TC	221 ± 4.5	207 ± 4.5	0.043	0.156
TAG	145 ± 5.7	129 ± 5.8	0.045	0.212
VLDL	28.5 ± 1.2	25.8 ± 1.2	0.095	0.270
LDL	137 ± 4.0	130 ± 4.1	0.240	0.109
HDL	53.4 ± 1.0	51.8 ± 1.05	0.303	-0.094
Apo A	128 ± 2.4	131 ± 2.4	0.341	-0.423
Apo B	106 ± 2.6	96 ± 2.6	0.016	0.520
LDL/HDL	2.6 ± 0.28	2.5 ± 0.28	0.633	0.04
hs-CRP	0.31 ± 0.03	0.26 ± 0.03	0.251	0.064
FBS	80.9 ± 1.1	80.4 ± 1.1	0.741	-0.054
Hb	12.2 ± 0.09	12.2 ± 0.09	0.766	-0.053
SBP	134 ± 0.36	132 ± 0.37	0.012	0.148
DBP	82.3 ± 0.21	81.2 ± 0.22	0.001	0.154

[#]Mean values depicted have been adjusted for the respective baseline values of each parameter.

TC = total cholesterol, TAG = triacylglycerols, LDL = low-density lipoprotein cholesterol, HDL = high-density lipoprotein cholesterol, Apo A = apolipoprotein A, Apo B = apolipoprotein B, FBS = fasting blood sugar, hs-CRP = high-sensitivity C reactive protein.

ERVA DE TRIGO – ACÇÃO SIMILAR A MEDICAMENTOS

ISRAEL 2002	Colite Ulcerosa	Ben Arya et al	Wheatgrass juice in the treatment of active distal ulcerative colitis	23	100ml de sumo ET (ou placebo) diariamente durante 1 mês em pacientes de colite ulcerosa	A randomized, double-blind, placebo controlled study Severity of rectal bleeding / reduced Disease activity index decreased. Wheat grass juice appeared effective and safe as a single or adjuvant treatment of active distal UC.
? 2009	Síndrome mielodispl ásica / talassemia	Mukhop adhyay. S. Et al	The role of iron chelation activity of wheat grass juice in patients with myelodysplastic syndrome	20 severe	30 mL of fresh wheatgrass juice made from 5-7 day old leaves daily for 6 months	This effect was comparable to a medically prescribed iron chelator, desferrioxamine The authors concluded that “wheatgrass juice is an effective iron chelator, and its use in reducing serum ferritin should be encouraged in myelodysplastic syndrome and other diseases where repeated blood transfusion is required
INDIA 2011	diabetes mellitus	Shirude Anup Ashok	PHYTOCHEMICAL AND PHARMACOLOGICAL SCREENING OF WHEATGRASS JUICE (TRITICUM AESTIVUM L.)	RATS	DIVERSE	Chlorophyll is water soluble. This fact resulted in water soluble extractives to be about 71.1% and the alcohol soluble fraction was found to be just 9.2%. The results are satisfactory and we can say that wheatgrass can prevent occurrence of hypoglycemic shocks Antioxidant activity of the wheatgrass juice was compared with the standard drug ascorbic acid.
Vários Estudo s	CARDIO COLESTER OL / ESTANINA S	REVIEW	Wheatgrass as cardio protective and anti- hyperlipidemic agent	Ratos	Várias Doses	An animal study by Kothari et al. found that wheatgrass reduced total cholesterol, LDL, bad cholesterol, and triglyceride levels in rats treated with wheatgrass juice. Triglyceride levels fell by 38 percent in rats given the highest dose of the juice, 10 ml/kg consumed orally once daily for 21 days, which is equivalent to the results achieved by the common cholesterol lowering medication, atorvastatin A study by Sethi et al found that supplementation with wheatgrass in subjects consuming high-fat diets resulted in the improvement of blood cholesterol levels. the beneficial role of wheatgrass in ameliorating hyperlipidemia and the associated oxidative stress has also been reported [32, 33].

ERVA DE TRIGO – EFEITOS SECUNDÁRIOS / CONTRA-IND.

ISRAEL 2015	REVIEW	Bar-Sela G	The Medical Use of Wheatgrass: Review of the Gap Between Basic and Clinical Applications	REVIEW	GERAL	However, all the trials were small and a number of methodological problems arose. No adverse events of wheatgrass have been reported, although some forms pose problems of tolerability. The popularity of wheatgrass continues to grow. Nevertheless, the advantages seen in the clinical trials need to be proved in larger studies before clinical recommendations for the public can be given.
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CONTRA-INDICAÇÕES ERVA DE TRIGO :

- 1 – GRAVIDAS – NÃO DEVEM COMER VEGETAIS CRUS / PRECAUÇÃO**
- 2 – CELIACOS (A FOLHA NÃO TEM GLUTEM / CONTAMINAÇÃO CRUZADA**
- 3 – ANTI-COAGULANTES / WARFARIN / VITAMINA K**

ATORVASTATINA – EFEITOS SECUNDÁRIOS FREQUENTES – 1 EM 10 PESSOAS

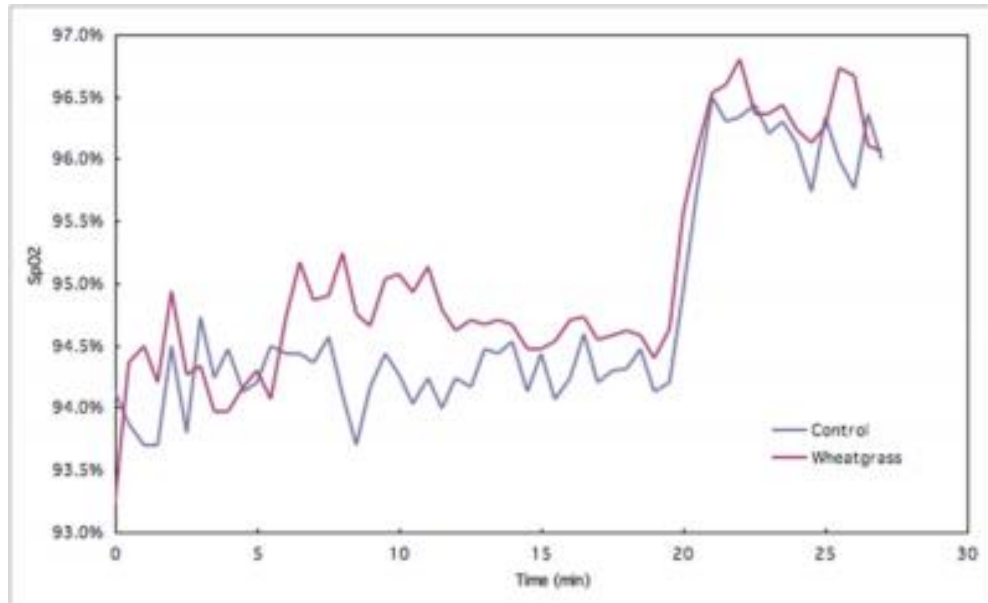
inflamação das fossas nasais, dor na garganta e sangramento nasal - reações alérgicas - aumento dos níveis de açúcar no sangue (se tem diabetes continue a controlar os seus níveis de açúcar no sangue), aumento da creatina quinase no sangue - dor de cabeça - náuseas, obstipação (prisão de ventre), flatulência (libertação de gases com mais frequência), má digestão, diarreia - dor nas articulações, nos músculos e nas costas - resultados de análises ao sangue que mostram que a função do seu fígado pode sofrer alterações

POUCO FREQUENTES – 1 EM CADA 100 PESSOAS / RAROS – 1 / 1000 / MUITO RARO – 1 / 10.000

TEORIAS DE AGRICULTOR 😊

ERVA DE TRIGO – ERGOGENIA ? - OXIGÉNIO NO SANGUE

? 2008 x	Oxigénio no Sangue Descanso	M Pascuzzi, Chambers	Does Wheatgrass Juice Oxygenate the Blood of Resting Individuals?	30	2-oz (59-mL) serving of juice. Fresh or frozen !!!	<p>-Crested wheatgrass (<i>Agropyron Cristatum</i>, (L) Gaertn, Poaceae)???</p> <p>-If the juice was consumed within one hour, it remained fresh. Otherwise, it was frozen and thawed immediately prior to consumption.</p> <p>-A linear fit of this data yields a slope of 0.0032% xygenation/minute. Wheatgrass juice does not significantly oxygenate the blood within 75 minutes of ingestion for resting, healthy participants.</p>
? 2008 x	Oxigénio no Sangue Exercício	M Handzel et al	Monitoring the Oxygenation of Blood During Exercise After Ingesting Wheatgrass Juice	30	2-oz (59-mL) serving of juice within 30 minutes of consumption for each wheatgrass trial.	<p>Though only by a small amount, participants sustained more oxygen (an average of 0.31%) during their wheatgrass trial exercise</p> <p>Post-exercise SpO2 was an average of 0.26% higher for the wheatgrass trials during the 8 min recovery period</p> <p>This study indicates that this natural pharmaceutical aids in blood oxygenation when the body is depleted of oxygen. However, this study was not a blind study; participants knew they received wheatgrass juice and not a placebo. Further research is necessary in order to account for the psychological aspect of wheatgrass juice as an ergogenic aid.</p>



Dizem “apenas” 0,31% numa escala de 100% mas se considerarmos que o SpO2 Normal varia 5% entre 93% e 97% é possível calcular 0,31% de 5% e registar um aumento de 6,2% de diferença entre o grupo que bebeu o sumo e o controlo.

NOTA : Bochecho? Absorção na mucosa SL. Clorofilina é Hidrosolúvel , vitamina C também de que forma ? algo que carregue oxigénio ? Doping Natural ☺

ERVA DE TRIGO – ENERGIA VITAL ? – SEM ESTUDOS ?

A MAIOR PARTE DE QUEM COMEÇA A TOMAR SHOTS DE ERVA DE TRIGO REGULARMENTE REFEREM UM AUMENTO DA ENERGIA QUE SENTEM / “Vontade de sair de casa! “

A ERVA DE TRIGO NÃO TEM PROTEÍNA, AÇUCAR OU GORDURAS SUFICIENTES PARA JUSTIFICAR ESTE “BOOST” ENERGÉTICO

POSSIBILIDADES :

1 – ERGOGENIA : + SANGUE + OXIGÉNIO = + REACÇÕES ?

- explicado no slide anterior

2 - DESENTOXICAÇÃO = UM SISTEMA LIMPO FUNCIONA MELHOR ?

“This effect was comparable to a medically prescribed iron chelator, desferrioxamine”

3 – ESPECTRO NUTRICIONAL = REPOSIÇÃO DE NUTRIENTES INCOMUNS = +EFICIÊNCIA ?

- Sem estudos encontrados

3 – WILD CARD? - “FOTOSÍNTESE” EM MAMÍFEROS - CLOROFILA + UV = ATP + Q10 + ?

How to Regenerate Coenzyme Q10 (CoQ10) Naturally – PUFF ! CoQ10 was reborn !

<https://www.youtube.com/watch?v=FqDDfslIMyQ>

- CLOROFILA – Cancer-Blocking Properties / Anti-Inflamatório / Desintoxicador / etc..

- “Results suggest chlorophyll type molecules modulate mitochondrial ATP (negligent) by catalyzing the reduction of coenzyme Q”...(ubiquinol>ubiquinone?/statins)

- “We propose that through consumption of plant chlorophyll pigments, animals, too, are able to derive energy directly from sunlight

APONTAMENTOS FINAIS / PESQUISAS A ADICIONAR :

APLICAÇÕES ONCOLÓGICAS NÃO-CONVENCIONAIS

- FITO-NUTRIENTES ANTI-CANCERÍGENOS – ESTUDOS IN-VITRO**
- ALCANIZAÇÃO E OXIGENAÇÃO – MUITA INFORMAÇÃO DISPONÍVEL**
- REGENERAÇÃO CELULAR – CASO FIGADO ? CASO “Óculos de Descanso”**

OUTROS TEMAS A DESENVOLVER / COM ESTUDOS DE CASO RELEVANTES

- GERIATRIA**
- ATLETAS**
- DEXOT + DIETA**
- DENTAL + COSMÉTICA**
- BIOVIVOS DE ERVILHA**
- BIOVIVOS DE GIRASSOL**
- ESTUDOS SOBRE GERMINADOS E MICRO-VEGETAIS**
 - NUTRIÇÃO E SUSTENTABILIDADE**

ESTA PALESTRA É UM TRABALHO CONTÍNUO

O OBJECTIVO É INFORMAR SOBRE TODOS OS ESTUDOS EXISTENTES, BONS E MAUS, PARA AJUDAR TODOS OS INTERESSADOS A TOMAR DECISÕES CORRECTAS E CONSCIENTES. AGLOMERAR ESTUDOS E ANGARIAR INVESTIMENTO PARA OS REPETIR E INVESTIGAR SOBRE NOVAS APLICAÇÕES PARA OS BIOVIVOS COMO UMA FONTE DE NUTRIENTES COM A MELHOR QUALIDADE POSSÍVEL , SUSTENTÁVEL E ACESSÍVEL A TODOS OS QUE PRECISAM.



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