

STUDI SCIENTIFICI



Studi scientifici

Da numerosi studi scientifici è emerso che la visciola possiede elevatissime proprietà nutrizionali principalmente **antiossidanti**, **antinfiammatorie**, **antiartriche** ed **anti-aging**, anche superiori a quelle derivate dall'assunzione di aspirina, in grado di aiutare le persone affette da dolori cronici o artrosi, ed utili a combattere l'infiammazione generale dell'organismo.

La visciola è particolarmente ricca di **sostanze biologicamente attive**, come i **polifenoli** e **antociani**, ed inoltre **potassio**, **magnesio**, **ferro** e **fibre**, tutti elementi importanti per il benessere fisiologico e con effetti anti-invecchiamento. Combattono le malattie cardiache, riducono i problemi di peso e tengono lontano il diabete. Se mangiate regolarmente, le visciole aiutano persino a regolare il naturale ciclo del sonno, a riposare meglio e anche a impiegare meno tempo e fatica ad addormentarsi.

Più in concreto:

Researchers say tart cherries have 'the highest anti-inflammatory content of any food'

Tart cherries may help millions reduce inflammation to manage pain, according to new research

LANSING, Mich., – Tart cherries may help reduce chronic inflammation, especially for the millions of Americans suffering from debilitating joint pain and arthritis, according to new research from Oregon Health & Science University presented today at the American College of Sports Medicine Conference (ACSM) in San Francisco, Calif.1 In fact, the researchers suggest tart cherries have the "highest anti-inflammatory content of any food" and can help people with osteoarthritis manage their disease.

In a study of twenty women ages 40 to 70 with inflammatory osteoarthritis, the researchers found that drinking tart cherry juice twice daily for three weeks led to significant reductions in

STUDI SCIENTIFICI

important inflammation markers – especially for women who had the highest inflammation levels at the start of the study.

"With millions of Americans looking for ways to naturally manage pain, it's promising that tart cherries can help, without the possible side effects often associated with arthritis medications," said Kerry Kuehl, M.D, Dr.PH., M.S., Oregon Health & Science University, principal study investigator. "I'm intrigued by the potential for a real food to offer such a powerful antiinflammatory benefit – especially for active adults."

Often characterized as "wear and tear" arthritis, osteoarthritis is the most common type of arthritis. Athletes are often at a greater risk for developing the condition, given their excessive joint use that can cause a breakdown in cartilage and lead to pain and injury, according to the Arthritis Foundation.

The inflammation benefits could be particularly important for athletes, according to Kuehl's previous research. In a past study he found that people who drank tart cherry juice while training for a long distance run reported significantly less pain after exercise than those who didn't.

* * * * *

Along with providing the fruit's bright red color, the antioxidant compounds in tart cherries – called anthocyanins – have been specifically linked to high antioxidant capacity and reduced inflammation, at levels comparable to some well-known pain medications.³

Previous research on tart cherries and osteoarthritis conducted by researchers at Baylor Research Institute found that a daily dose of tart cherries (as cherry extract) helped reduce osteoarthritis pain by more than 20 percent for the majority of men and women.⁴ And the same compounds linked to cherries' arthritis benefits have now shown promise for athletes and sports recovery to help relieve muscle and joint soreness.

According to Director of Sports Nutrition at the University of Pennsylvania Medical Center for Sports Medicine, Leslie Bonci, MPH, RD, CSSD, LDN, who has incorporated tart cherries into the training menu of both her professional athletes and active clients as a natural and easy way to manage pain that also tastes great, "Why not eat red when there's so much science to support the anti-inflammatory benefits of this Super Fruit? And for athletes whose palates prefer the tart-sweet flavor profile of tart cherries, it's the optimal ingredient."

Available every day of the year in dried, frozen and juice forms, tart cherries are a versatile ingredient to include in any training or inflammation-fighting diet.

Sources:

- 1. Sleigh, AE, Kuehl KS, Elliot DL. Efficacy of tart cherry juice to reduce inflammation among patients with osteoarthritis. American College of Sports Medicine Annual Meeting. May 30, 2012.*
- 2. Kuehl KS, Perrier ET, Elliot DL, Chestnutt J. Efficacy of tart cherry juice in reducing muscle pain during running: a randomized controlled trial. J Int Soc Sports Nutr 2010;7:1722.*
- 3. Seeram NP, Momin RA, Nair MG, Bourquin LD. Cyclooxygenase inhibitory and antioxidant cyanidin glycosides in cherries and berries. Phytomedicine 2001;8:362-369.*

STUDI SCIENTIFICI

4. *Cush JJ. Baylor Research Institute, pilot study on tart cherry and osteoarthritis of the knees, 2007.*

An extensive and growing body of research suggests that the powerful antioxidants in tart cherries that give the super fruit its bright red color are also responsible for their antiinflammatory properties and health benefits. Today, there are more than 50 studies specifically on tart cherries and scientists continue to uncover new and important benefits of today's hottest Super Fruit.

A number of studies have specifically linked tart cherry consumption and cherry anthocyanins to decreased inflammation and inflammatory-related conditions.¹⁻³ One study from University of Michigan researchers revealed a cherry-enriched diet reduced inflammation markers in animals by up to 50 percent⁴ and another found drinking eight ounces of tart cherry juice daily for four weeks significantly reduced important markers of inflammation in overweight and obese adults.⁵

This inflammatory benefit is behind cherries' ability to reduce risk for arthritis and gout, promote cardiovascular health and most recently to aid muscle recovery and reduce oxidative stress in athletes.

Page References:

- 1. Seymour EM, Urcuyo-Llanes D, Bolling SF, Bennink MR. Tart cherry intake reduces plasma and tissue inflammation in obesity-prone rats. FASEB J 2010; 24:335.1.*
- 2. Traustadottir T, Davies SS, Stock AA, Su Y, Heward CB, Roberts, LJ, Harman SM. Tart cherry juice decreases oxidative stress in healthy older men and women. J Nutr 2009;139:1896-1900.*
- 3. Mulabagal V, Lang GA, DeWitt DL, Dalavoy SS, Nair MG. Anthocyanin content, lipid peroxidation and cyclooxygenase enzyme inhibitory activities of sweet and sour cherries. J Ag Food Chem 2009;57:1239-46.*
- 4. Seymour EM, Singer AAM, Kirakosyan A, Urcuyo-Llanes DE, Kaufman PB, Bolling SF. Altered hyperlipidemia, hepatic steatosis and hepatic ppars in rats with intake of tart cherry. J Med Food 2008;11:252-259.*
- 5. Martin KR, Bopp J, Burrell L, Hook G. The effect of 100% tart cherry juice on serum uric acid levels, biomarkers of inflammation and cardiovascular disease risk factors. FASEB J 2011;25:339.2.*
- 6. Bowtell JL, Sumners DP, Dyer A, Fox P, Mileva KN. Montmorency cherry juice reduces muscle damage caused by intensive strength exercise. Med Sci Sports Exerc. 2011;43:1544-1551*

An Antioxidant Powerhouse

Tart cherries are packed with powerful antioxidants. In fact, they have among the highest levels of antioxidants of other super foods. Tart cherries ranked 14 in the top 50 foods for highest antioxidant content per serving size – surpassing well-known leaders such as red wine, prunes, dark chocolate and orange juice, according to one recent study.

STUDI SCIENTIFICI

New Study Demonstrates Impact of Montmorency Tart Cherries on Inflammation and Oxidative Stress after High-Intensity Cycling

LANSING, Mich., 2014 –Cyclists who drank Montmorency tart cherry juice concentrate before a three-day simulated race experienced less inflammation and oxidative stress compared to those who drank another beverage, according to a new U.K. study published in the journal *Nutrients*.

A research team led by Dr. Glyn Howatson with PhD student Phillip Bell at Northumbria University gave 16 well-trained, male cyclists about 1 ounce (30 ml) of Montmorency tart cherry juice concentrate mixed with water (equivalent to 90 whole Montmorency tart cherries per serving), or a calorie-matched placebo, twice a day for seven days. On days five, six and seven, the participants performed prolonged, high-intensity cycling intervals – exercise that was designed to replicate the demands of a three-day race.

The researchers collected boldo sample and fund that marker of inflammation and oxidative stress were significantly lower in the cyclists who consumed the tart cherry juice concentrate compared to those who did not. At one point during the trial, oxidative stress was nearly 30 percent lower in the tart cherry group compared to the other group.

Strenuous exercise can cause temporary inflammation and oxidative stress that can lead to muscle damage, muscle soreness and reduced capacity to recover quickly, explains research lead Glyn Howatson, Ph.D., laboratory director at the Department of Sport, Exercise and Rehabilitation at Northumbria University. He attributes the recovery benefits shown in the study to the natural compounds in Montmorency tart cherries. One of the natural compounds found in Montmorency tart cherries is anthocyanins.

“Previous studies have looked at tart cherries and the effect on recovery following weight lifting exercise and marathon running, but until now there hasn’t been information on recovery following strenuous exercise from cycling,” said Howatson. “We found that those cyclists that consumed Montmorency tart cherry juice had statistically significant lower indices of inflammation and metabolic oxidative stress, which is the first time it has been demonstrated following this type of exercise.”

Tart cherries are available year-round in dried, frozen and juice forms –including juice concentrate, which was the form used in this new study. Montmorency tart cherry juice concentrate can be mixed with water or consumed as a “shot.” It can also be used to make smoothies, mixed with frozen tart cherries or other fruits.

The Cherry Marketing Institute provided financial support for the analysis of inflammatory indices. All other elements of the study were funded by Northumbria University and the University of Ulster, UK. The funders had no role in the study design, data collection and analysis, decision to publish or preparation of the manuscript.

Tart cherries 'may ease arthritis-related inflammation'

People with arthritis may benefit from eating plenty of tart (sour) cherries, according to US scientists.

STUDI SCIENTIFICI

Researchers at Oregon Health & Science University studied 20 women, aged 40 to 70, with inflammatory osteoarthritis.

Participants were asked to drink tart cherry juice twice a day for three weeks.

Analysis revealed that women who consumed the juice benefited from significant reductions in levels of inflammatory markers.

The improvements were particularly noticeable in those women whose levels of inflammation were highest at the start of the three-week period.

It is thought that tart cherries' effects on inflammation may be due to their antioxidant compounds, called anthocyanins.

Presenting their findings at a conference of the American College of Sports Medicine in California, the study authors claimed that the fruits may have the highest anti-inflammatory content of any food, and that they may therefore help to reduce chronic inflammation in people with arthritis and other forms of joint pain.

Principal study investigator Dr Kerry Kuehl said: "It's promising that tart cherries can help, without the possible side-effects often associated with arthritis medications.

"I'm intrigued by the potential for a real food to offer such a powerful anti-inflammatory benefit - especially for active adults."

A spokesman for Arthritis Research UK said previous small studies had also shown that tart cherries could reduce inflammation, but further published evidence was needed to back up such claims.

Arthritis Research UK

* * * * *

Ed in Italia:

Studi prodotti dal Consiglio Nazionale delle Ricerche hanno rilevato che la visciola possiede enormi proprietà antinfiammatorie superiori a quelle derivate dall'assunzione di aspirina.

*Da uno studio dei ricercatori della OHSU è presentato durante l'American College of Sports Medicine Conference (ACSM) che si tiene a San Francisco emerge ora che un tipo di **ciliegie selvatiche**, ritenuto meno pregiato, contiene alti livelli di antinfiammatori in grado di aiutare le persone affette da dolori cronici, artrosi o osteoartrite. Le **visciole**, sinora considerate 'parenti povere' delle ciliegie classiche, sarebbero però anche utili a combattere l'infiammazione generale dell'organismo.*

*Come ha spiegato la dottoressa Kerry Kuehl dell'Oregon Health and Science University, le visciole hanno il "più alto contenuto di **sostanze antinfiammatorie** di qualsiasi cibo". "Con milioni di persone alla ricerca di modi per gestire in modo naturale il dolore, c'è la promessa che le visciole possono aiutare, senza gli effetti collaterali spesso associati con i farmaci per l'artrite".*

*Già precedenti studi avevano rilevato le **proprietà benefiche** delle visciole. Uno studio della Università degli Studi di Medicina Integrativa del Michigan, in particolare, suggeriva che le*

STUDI SCIENTIFICI

ciliegie possono “offrire vantaggi come la riduzione dei fattori di rischio per le malattie cardiache e l’infiammazione”.

Le ciliegie, frutto di questo periodo, sono conosciute per essere ricche di antiossidanti. Il licopene, la vitamina A e il betacarotene sono infatti i tesori contenuti in questo frutto dal colore intenso: tutti elementi che rafforzano il sistema immunitario e aiutano a prevenire il colesterolo cattivo.

Ottime quelle della varietà “Prunus cerasus”, ovvero l’amarena o visciola. Due studi americani ne esaltano tutte le proprietà: contro l’invecchiamento, grazie agli antiossidanti, e contro l’insonnia, grazie al contenuto di melatonina.

Non solo: le visciole sono ricche di vitamina A, C, potassio, magnesio, ferro, folato e fibre. I ricercatori della University of Michigan hanno nutrito un gruppo di animali con una dieta arricchita da visciole e hanno osservato una riduzione del colesterolo e dei trigliceridi nel sangue, nonché una diminuzione del peso e del livello di infiammazione, quindi di fattori di rischio cardiovascolari.

Un altro studio, condotto presso lo University of Texas Health Science Center, afferma addirittura che le visciole possono aiutare a dormire meglio, grazie al contenuto di melatonina, la sostanza naturalmente presente nel cervello che stabilizza il sonno ma che agisce anche come antiossidante, proteggendo il corpo dallo stress ossidativo.

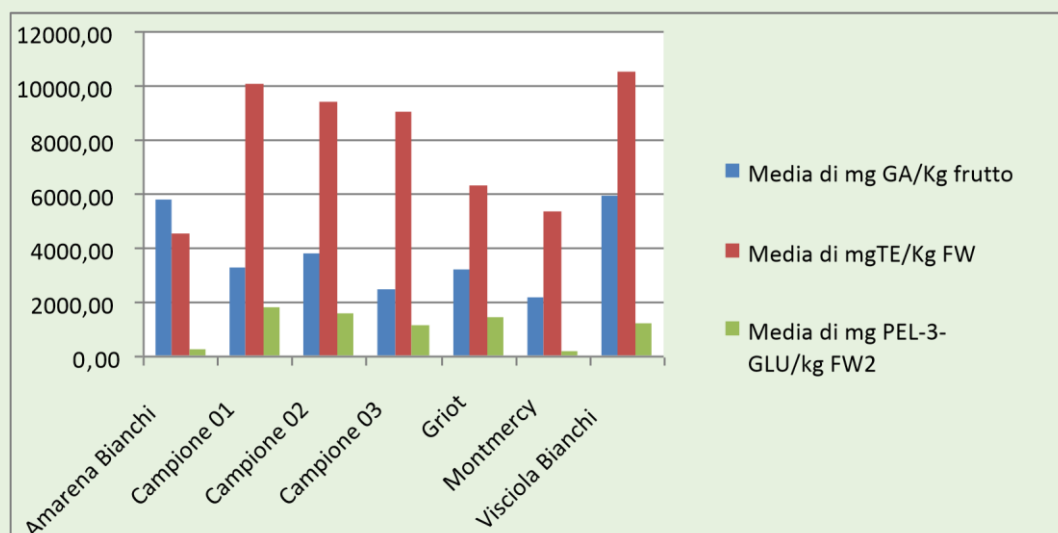
La stessa ricerca ribadisce gli altri benefici delle visciole: combattono le malattie cardiache, riducono i problemi di peso, tengono lontano il diabete. “Se mangiate regolarmente, le visciole aiutano a regolare il naturale ciclo del sonno, a riposare meglio e anche a impiegare meno tempo e fatica ad addormentarsi”, secondo Russel J. Reiter, nutrizionista che ha diretto lo studio.

* * * * *

Per quanto riguarda le nostre visciole (cultivar Bianchi d’Offagna), esami tecnici hanno evidenziato gli elevati contenuti nutrizionali delle ciliegie selvatiche, comunque ben superiori alla media ed in ogni caso alla specie di visciola utilizzata dai competitors americani (Montmorency). Secondo i seguenti risultati:

Nome	Media di mg GA/Kg frutto	Media di mgTE/Kg FW	Media di mg PEL-3-GLU/kg FW2
Amarena Bianchi	5760,49	4509,32	242,52
Campione 01	3294,53	10098,90	1747,31
Campione 02	3744,79	9403,02	1531,68
Campione 03	2477,66	9050,01	1124,78
Griot	3191,20	6300,84	1437,54
Montmercy	2146,78	5342,94	142,90
Visciola Bianchi	5953,45	10507,16	1182,61

STUDI SCIENTIFICI



Cultivar	Media di Brix	Dev. standard di Brix	Media di AT
Amarena Avv. Bianchi	13,27	0,06	25,63
Griote 1	18,33	0,12	18,62
Montmercy	14,40	0,53	25,63
Visciola Avv. Bianchi	11,67	0,15	38,98
(vuoto)			
Campione 01	15,5		39,4
Campione 02	15		38,45
Campione 03	10,2		31

Nome	Media di mg GA/Kg frutto	Dev. standard di mg GA/Kg frutto2
Amarena Bianchi	5760,49	39,77
Campione 01	3294,53	219,54
Campione 02	3744,79	151,60
Campione 03	2477,66	146,78
Griot	3191,20	214,14
Montmercy	2146,78	92,33
Visciola Bianchi	5953,45	85,08

Cultivar	Media di mgTE/Kg FW	Dev. standard di mgTE/Kg FW
Amarena Bianchi	4509,32	173,42
Campione 01	10098,90	390,56
Campione 02	9403,02	167,42
Campione 03	9050,01	119,82
Griot	6300,84	216,19
Montmercy	5342,94	205,12

STUDI SCIENTIFICI

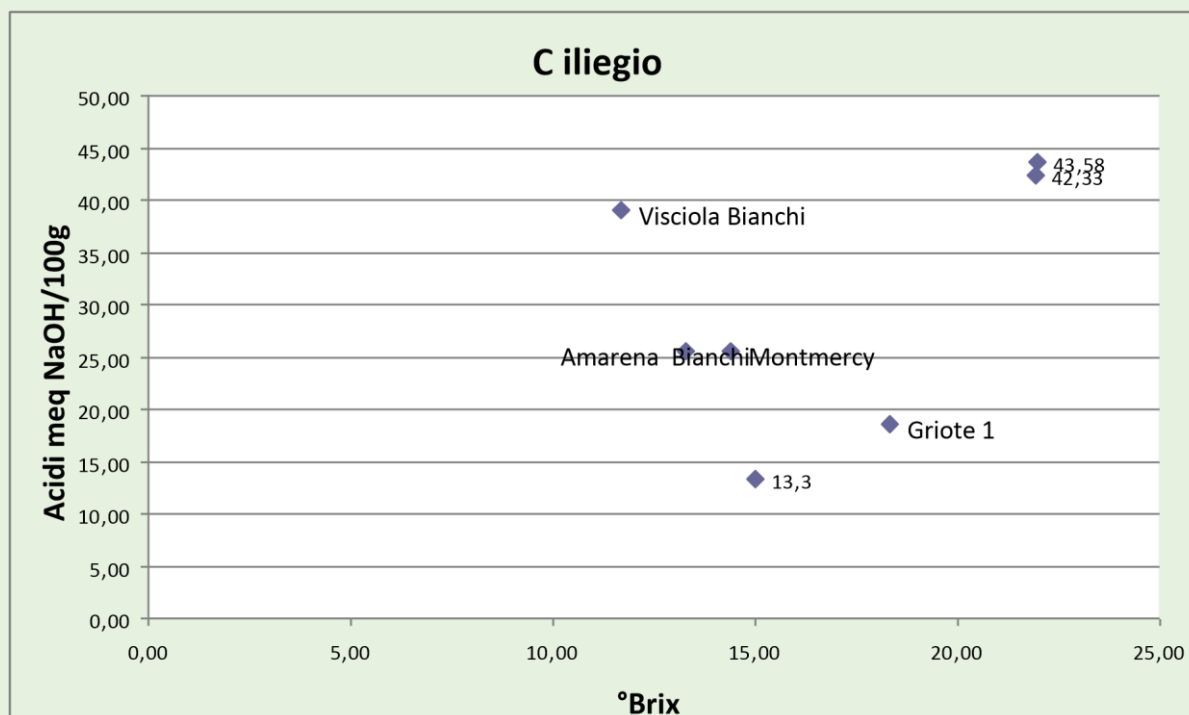
Visciola Bianchi

10507,16

13,86

<u>Etichette di riga</u>	<u>Media di mg PEL-3-GLU/kg FW2</u>	<u>Dev. standard di mg PEL-3-GLU/kg FW2</u>
Amarena Bianchi	242,52	4,24
Campione 01	1747,31	25,30
Campione 02	1531,68	6,95
Campione 03	1124,78	13,64
Griot	1437,54	9,67
Montmercy	142,90	5,76
Visciola Bianchi	1182,61	14,36

Cultivar	Brix	AT
Amarena Avv. Bianchi	13,3	25,65
Amarena Avv. Bianchi	13,2	25,6
Amarena Avv. Bianchi	13,3	25,65
Visciola Avv. Bianchi	11,5	39,7
Visciola Avv. Bianchi	11,8	39,95
Visciola Avv. Bianchi	11,7	37,3
Griote 1	18,2	20,5
Griote 1	18,4	18,2
Griote 1	18,4	17,15
Montmercy	14,8	25,95
Montmercy	14,6	26,65
Montmercy	13,8	24,3
Campione 01	15,5	39,4
Campione 02	15	38,45
Campione 03	10,2	31



STUDI SCIENTIFICI

