

### **Genosa**

#### **Pioneers**

- 20 years of experience
- Reliable supplier
- Wide international distribution network
- Markets: 25 countries
- Products: > 100 (foods/supplements)
- 75% of customers maintain Hytolive® after 3 years
- Hydroxytyrosol: more and more scientific publications every year



### **hytolive®**



- High purity in hydroxytyrosol
- 100% naturally obtained (free of solvents)
- Patented, clean and sustainable process
- ISO 9001, 14001 and 22000
- GMP
- GRAS
- Clinically proven
- EFSA claim
- HALAL and Kosher

### **hytolive®**

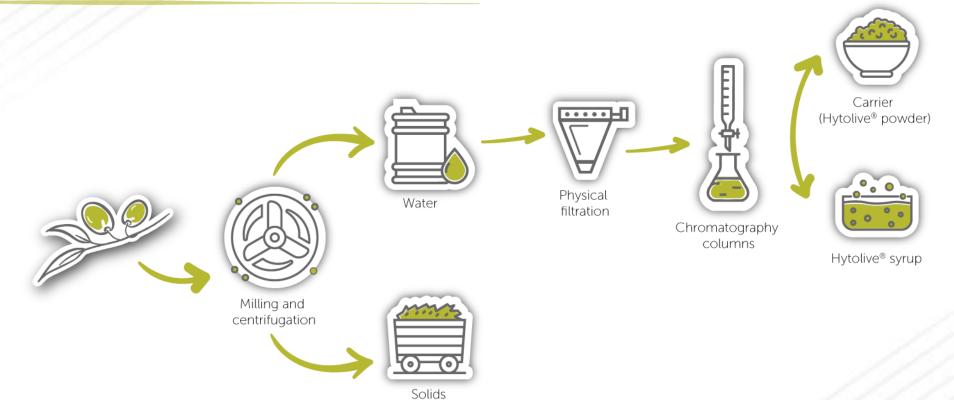
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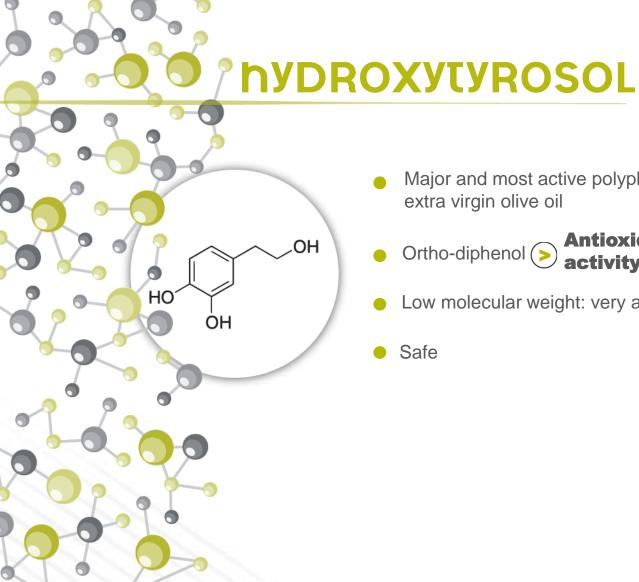


**BRAND OF SUCCESS** 

### **hytolive® process**







- Major and most active polyphenol in olives and extra virgin olive oil
- **Antioxidant and anti-inflammatory** Ortho-diphenol (>) activity
- Low molecular weight: very active
- Safe



HO

OH

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- Ortho-diphenol
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**Hydroxytyrosol: nice molecule** 

### hytolive® versions

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#### **AND SOON:**

Hytolive® BEV: powder version with no organoleptical impact on beverages; 2/3% natural hydroxytyrosol

**Hytolive® powder:** water soluble (tablets, pills, capsules, beverages, dairy, foods, ...); **10% natural hydroxytyrosol** 

**Hytolive® soft:** micronized powder for softgel capsules); **10% natural hydroxytyrosol** 

**Hytolive® syrup:** syrup appearance, water soluble (beverages, foods); **25% natural hydroxytyrosol** 

**Hytolive** Infinity: oily concentrates based on sunflower, soya, canola, olive, palm (750-1.500 ppm hydroxytyrosol/tyrosol); fat soluble (vegetable oils)







- First oily extract containing hydroxytyrosol and tyrosol to be incorporated into oils (omegas, high oleic sunflower oil, soya oil, olive oil, ...)
- Double function in oils:
  - The polyphenolic fraction of EVOO into polyphenol free oils
  - Protection from oxidation (stability)
- No impact on organoleptical properties: taste or visua.
- Free of additives, emulsifiers or encapsulations



# hytolive® overall health ingredient

#### **Oxidation and/or inflammation**







Joints



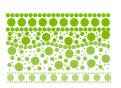
Aging



> Neurodegenerative



Autoimmune

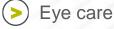


> Skin



Menopausia







- "Hydroxytyrosol contributes to the protection of blood lipids (LDL cholesterol) from oxidative stress" (5 mg hydroxytyrosol/day) > EFSA CLAIM
- (Hernáez et al; J Nutr 2015)
- (3) "Hydroxytyrosol enhances HDL cholesterol function" (Hernáez et al.; Journal of the American Heart Association 2014)
- Hydroxytyrosol (**Hytolive®**) shows antiplatelet aggregation activity (improves blood flow) ("A thromboxane effect of a hydroxytyrosol-rich olive oil wastewater extract in patients with uncomplicated type I diabetes"; CL Léger et al 2005; European Journal of Clinical Nutrition).





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### Zinzino (Scandinavia)



### Cerule (US): Blood flow





**External action:** free radical scavenger; ROS scavenge (OH, H<sub>2</sub>O<sub>2</sub>, O<sub>2</sub>-)

**Internal influence:** increase of endogenous glutathione

### **Bayer Supradyn Multivitamin Energy and Memory 50**:

Europe (tablets and effervescent pills): Spain, Austria, Netherlands, Belgium, ...















#### **Canolive:**

Pakistan: functional vegetable cooking oil (optimal fatty acid profile + the olive antioxidants); focused on Genosa collaboration

https://www.youtube.com/watch?v=hGq8kLkzrSM https://www.youtube.com/watch?v=Y K6h02ttdo





#### Danke:

Milk in powder; Vietnam (global health)

#### Goldsure (Malaysia):

Plant based product with vitamins and proteins (global health)



#### Prisma (Spain):

Eye protection from blue light



Aging

Strenuous exercise

Lack of training

Oxidation and inflammation (normal processes)



Imbalance DAMAGE





Fatigue

Muscles / immune

system function









Lack of training

### sports

## Hydroxytyrosol: Prevents oxidative damage and leads to increase resistance and latter recovery

Modulates Nitric Oxide and endothelium function (Storniolo CE; Redox Biol. 2014)

Improves mitochondrial function (Zheng Br.; Br. J. Nutr. 2015)

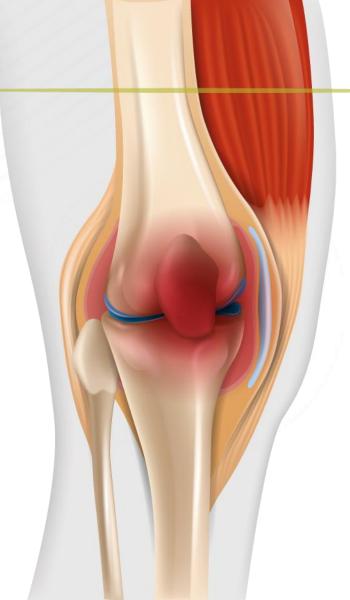


### sports



#### **Nutriex Sports (US):**

Formulated to counter-balance the high physical demands athletes place on their bodies, including intense training, injury response and recovery from surgery



### Joint health

Hydroxytyrosol is considered as **the major and most active anti-inflammatory compound** in aqueous olive extracts and impairs cytokine and chemokyne products in macrophagues (Natalie Richard et al; 2011)

"HT exerts anti-inflammatory and antioxidant activities in a mouse model of systemic inflammation" (R. Fucelli et al.; Molecules 2018).

"Subjects with osteoarthritis (OA) showed significant improvement of the Disease Activity Score with 28-joint count index". "After a relatively short treatment, subjects with OA and Reumathoid Arthritis (RA) reported decreased pain and improvement in activities of daily living"

(CM Bitler et al.; Nutritional Research 2007)

### Joint health

**Taiwan:** Hytolive® + Hyaluronic acid + Collagen UC-II

Taiwan: Hytolive® + glucosamine





#### **Lipolife (UK):**

Liposomal curcumin, boswellia and Hytolive (joint health)



### skin health



- Hydroxytyrosol protects from:
  UV rays (it reduces UV-induced erythema and tanning by its)
  Antioxidant activity (Phytotherapy Research 2009)
  ROS species: it counteracts the cytotoxyc effects ROS (Manna et al)
  DNA damage
- 2 Hydroxytyrosol increases internal glutathione in human fibroblasts, melanocytes and keranocytes
- 3 Hydroxytyrosol protects from irritation on skin (psoriasis; atopic dermatitis)

### skin health

#### **Applications:**

#### Skin whitening and elimination of aging spots:

pigmentation is induced and exacerbated by UV light and this light produces reactive oxygen species (ROS), stimulating melanocytes and promoting melanogenesis (*Izuku Kaneko et al; Anti-aging* 2008)

- Hydroxytyrosol increases internal glutathione in human fibroplasts, melanocytes and keranocytes by promoting an influx of cystine via the cysteine/glutamate exchange transporter. Glutathione enhances the photo-ptotective effect of cells
- Hydroxytyrosol has anti-melanogenic effect Anti-aging, antiwrinkles, antioxidant, ...

### conclusions







Make Hytolive® part of your product