

# Natural solution for hot flashes

  
**lifinol**<sup>®</sup>  
Renew your sense of womanhood



**NATlife**<sup>™</sup> 

# Natural solution for hot flashes

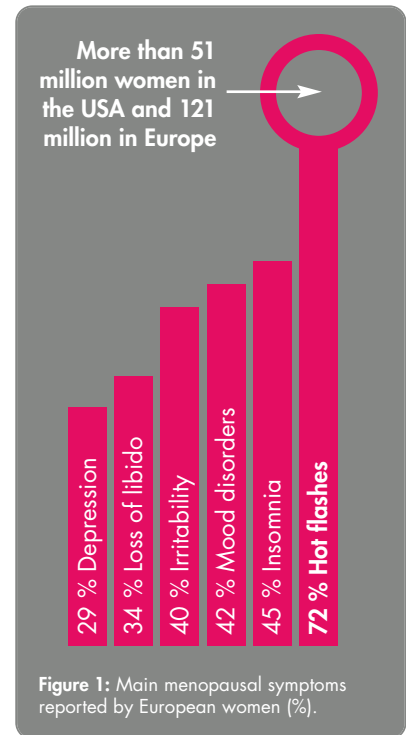
## Market opportunities

Due to hormone level changes, a majority of women will experience climacteric symptoms and discomforts at menopause. A recent European survey shows that hot flashes are the symptom most often reported by women during menopause (figure 1). American and Asian studies also suggest a **high prevalence of hot flashes among women**, recognized worldwide as the main symptom of complaint during menopause. In order to reduce such discomforts, more and more women are looking today for natural, efficient and safe solutions.

## Lifenol<sup>®</sup> as a natural solution

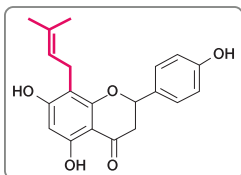
Among the various plants traditionally used today, **female hop cones show very promising results in the innovation field**. Studies published in the past decade have revealed the link between the estrogenic activity of hops and its content in 8-prenylnaringenin (8-PN) - molecule reported to be the most active phytoestrogen known to date.

Based on these findings, Naturex developed Lifenol<sup>®</sup>, a female hop cone extract with 8-PN, recognized for its potency to reduce hot flashes.



## Premium characteristics

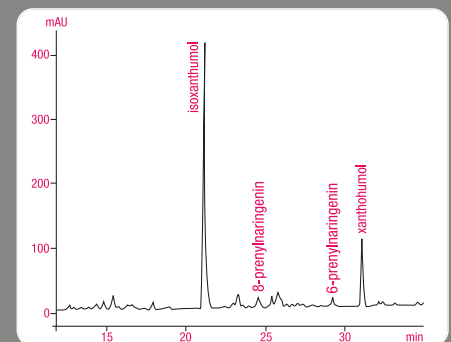
**Patented process and applications**  
**8-PN content certified**  
**Selected varieties of hops guaranteeing an extract containing specific prenylflavonoids**



**Lifenol<sup>®</sup> is a specific female hop cone extract** standardized in prenylflavonoids, including 8-PN. The **patented process** guarantees to our clients a unique profile in prenylflavonoids (figure 2). This profile is, for the first time, associated with efficacy studies on menopausal disorders and, especially, hot flashes.

### Lifenol<sup>®</sup>'s composition

8-prenylnaringenin	0.12 to 0.2%
6-prenylnaringenin	> 0.1%
Xanthohumol	> 3.0%
Isoxanthohumol	> 1.0%



**Figure 2:** Example of Lifenol<sup>®</sup>'s HPLC profile.

# Scientific evidence

Menopausal disorders were assessed scientifically with two questionnaires: the Medical Professionals' or MPs (physicians and gynaecologists) scoring sheet and the participants' quality of life self-evaluation.

**A 120 mg per day supplementation with Lifenol® improves women's quality of life by reducing hot flashes.**

**Study 1 :** 6 weeks - Randomized, double-blind, placebo controlled clinical study

**MPs evaluation (Kupperman index)**

- More than 2 times less general menopausal discomforts
- 4 times less hot flashes

**Study 2 :** 8 weeks - Randomized, double-blind, placebo controlled crossover clinical study

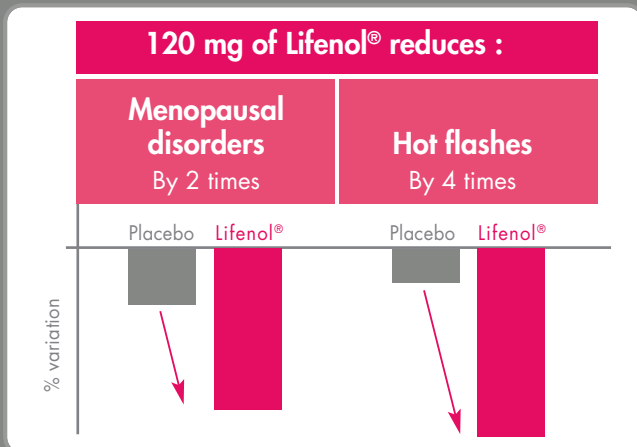
**Women self-evaluation.**

- 3 times less hot flashes
- 2 times less night sweats

MPs evaluation (Kupperman index)

No side effects reported in both studies. Moreover, the toxicological risk assessment confirmed the safety of Lifenol®.

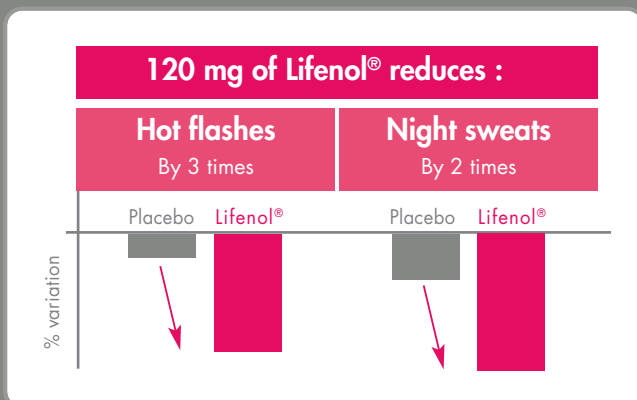
## MEDICAL PROFESSIONALS' EVALUATION



The medical professionals' evaluation was assessed with the Kupperman index (KI), a scientifically validated test used as a general menopausal disorders' barometer.

Ingestion of 120 mg of Lifenol® daily during 6 weeks has been **clinically proven to reduce menopausal-associated disorders and particularly hot flashes** on post-menopausal women (KI, study 1). Study 2 confirmed the significant effect of the supplementation on menopausal discomforts (KI).

## WOMEN SELF EVALUATION



The efficiency of Lifenol® has also been self-evaluated by supplemented women through participants' validated questionnaires.

The crossover study shows a **strong improvement of menopausal women's quality of life**: after 8 weeks of supplementation, women reportedly feel:

- 3 times less hot flashes,
- 2 times less night sweats.

**Lifenol® is an efficient active ingredient appreciated by women for reducing menopausal disorders and especially hot flashes and night sweats.**

**Bibliographical references:**

- Heyerick *et al.* 2006.
- Keenan *et al.* 2003.
- Zierau *et al.* 2005
- Haines *et al.* 2005.
- Erkkola *et al.* in preparation



About 70% of menopausal women are affected by hot flashes. As the scientific debate about menopause treatments remains controversial, studies on the role of certain plant alternatives show promising results. Keeping in mind the large amount of women concerned by menopause, it is key today for Naturex to propose a natural and safe option to its clients.

Lifenol® is the first patented hop extract on the market standardized in **8-prenylnaringenin** backed by **2 clinical studies on humans** proving the positive effect of the extract on menopausal-associated symptoms, especially hot flashes.

<b>Commercial name</b>	Lifenol®	www.lifenol.com
<b>Complete name</b>	Hydroalcoholic female hop cones extract > <i>Humulus lupulus</i> L.	
<b>Appearance</b>	Fine green powder	
<b>Active compounds</b>	8-prenylnaringenin	0.12 to 0.2%
	6-prenylnaringenin	> 0.1%
	Xanthohumol	> 3.0%
	Isoxanthohumol	> 1.0%
<b>Scientific results</b>	Randomized, double-blind, placebo controlled clinical study Randomized, double-blind, placebo controlled crossover clinical study <b>A 120 mg per day supplementation with Lifenol® improves women's quality of life by reducing hot flashes.</b> <b>Medical professionals' evaluation (Kupperman index):</b> - More than 2 times less general menopausal discomforts - 4 times less hot flashes <b>Women self-evaluation:</b> - 3 times less hot flashes - 2 times less night sweats	
<b>Lifestyle</b>	> Serene Lifestyle during menopause > Renewed balanced Lifestyle	
<b>Claims</b>	> Improves menopausal women's quality of life by reducing associated disorders > Improves menopausal women's quality of life by reducing hot flashes and night sweats	
<b>Application</b>	Lifenol® can be used in any food supplements	
<b>Recommended dosage</b>	120 mg / day in one or more doses	
<b>Safety &amp; quality</b>	No side effects have been reported in the clinical studies. A complementary clinical study confirmed the safety of Lifenol®. Lifenol® is a 100% guaranteed plant extract which conforms to current European standards regarding the absence of GMO, allergens, pesticides, heavy metals, and mycotoxins. The microbiologic tests comply with current Eur. Ph. 5.1.4.	

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