ANCIENT WISDOM, MODERN EVIDENCE:
SHATAVARI & GINGER FOR WOMEN'S HEALTH

Ennature BIOPHARMA

A clinical evidence review of two time-honored botanicals examining what tradition tells us, and what modern science confirms about their role in women's health.

WHY THIS TOPIC MATTERS?

One half of the world’s population is women, yet women’s health needs have often been overlooked.[1] Their needs aren’t linear and individual journey rarely fits into predefined “life stages.”

~33% opt for dietary supplementation or natural remedies for symptom management, through these stages [2]

But the key question is not whether a herb is 'natural' but whether it's supported by robust clinical evidence to justify qualified health claims.

Source:
1. McKinsey & Company. (2022, February 14). Unlocking opportunities in women’s Healthcare
2. Euromonitor International, Supporting Women’s Health and Wellness Through the Lifecycle

SPEAKER

DR. JENNIFER GREER

Naturopathic Physician and Scientific Advisor/Medical Affairs Consultant

SHATAVARI IN TRADITION

Derived from the roots of *Asparagus racemosus*, Shatavari is one of Ayurveda's most revered botanicals, traditionally recognized as **a Rasayana (Rejuvenating)** for supporting feminine wellbeing, vitality, and resilience.

~2,000 years of documented Ayurvedic use

179 Ayurvedic formulations documented in the Brihatrayi (Great Trio of Ayurvedic texts)

Referenced in foundational Ayurvedic texts

- *Charaka Samhita* ~150 BCE–100 CE – Internal medicine and Rasayana science.
- *Sushruta Samhita* – Health maintenance and medicinal botanicals.
- *Ashtanga Hridaya* – Comprehensive Ayurvedic therapeutics and rejuvenation

Recognized in Official Pharmacopoeias & Global Regulatory Frameworks

- Ayurvedic Pharmacopoeia of India
- Indian Pharmacopoeia
- Unani Pharmacopoeia of India
- Medicinal Plants of Myanmar
- Licensed Natural Health Products (Canada)

SHATAVARI IN MODERN RESEARCH

Phytochemical Profile

- **Steroidal Saponins (Shatavarins I–IX)**
  Shatavarin IV represents the key bioactive component contributing to phytoestrogenic activity
- **Polyphenols & flavonoids**
- **Polysaccharides**

Shatavarins are absorbed relatively slowly and incompletely in its unformulated, natural state.

- Poor GIT Permeability
- Very Low Bioavailability

Current clinical research areas

- Menopausal wellbeing
- Lactation support
- Women's reproductive health
- Physiological balance & recovery

ASPARGiZE™

Fast- Acting Shatavari

**Truly Standardized root-only,
naturally bio-enhanced Shatavari composition**

**NLT 5%
Shatavarin IV**

**NLT 10%
Total Shatavarins**

**NLT 45%
Total Saponins**

Doses too low*, or with insufficient Shatavarin content, may not produce adequate clinical significance in reducing menopausal symptoms. Standardization and dose matter critically.

Mechanistic Support

HPO (hypothalamus–pituitary–ovarian) axis Modulation

Shatavarin IV's phytoestrogenic activity support healthy neuroendocrine signaling

Bi-Directional Hormone Modulation

Shatavarin IV exhibit estrogen receptor (ER) binding affinity, enabling it to exert estrogen-like effects when endogenous estrogen levels are low (as in menopause) and modulatory effects when estrogen is elevated, supporting hormonal balance.

ASPARGIZE – 1st Clinical Study (Peri- and Postmenopausal women)

Condition

Sexually active females with moderate menopause symptoms
(MRS score of 9-16)

Participants

N=70 females;
Age: 45-55 Yrs
(Perimenopausal and postmenopausal women)

Duration & Evaluation

56 Days
Day 14, 28, 42 & 56

Dose

400mg /Day

Primary End point:

- Change in Hot flush score
- Change in climacteric symptom score (Menopause Rating Scale – MRS)

Secondary Outcomes:

- Perceived stress Scale (PSS 1O)
- Menopause specific quality of Life (MENQOL)
- Mood (POMS)
- Sleep quality index (PSQI)
- Serum estradiol

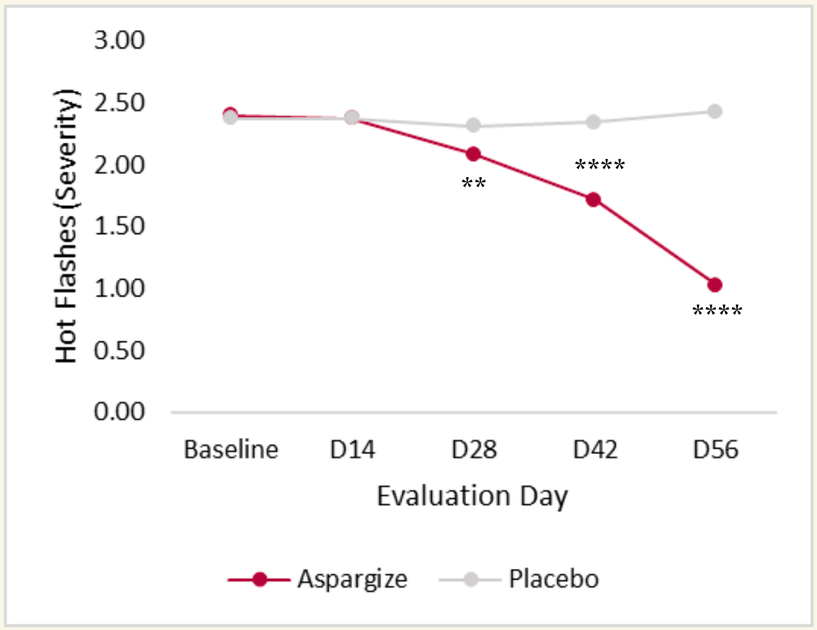
Exploratory Outcomes:

- Salivary cortisol
- Serum FSH, LH, Testosterone

FAST ACTING & MULTI SYMPTOM MENOPAUSAL SUPPORT

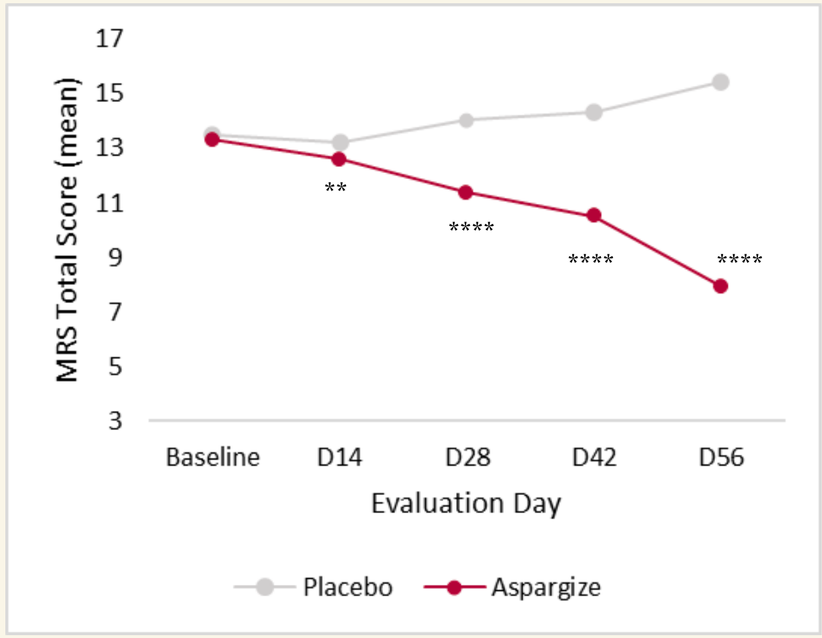
Aspargize™ at a dose of 400 mg/day significantly reduces **overall menopausal symptoms**, **starting 2 weeks**

**p < 0.01, ****p < 0.0001 vs placebo



58% Reduction
in hot flash intensity as compared to placebo

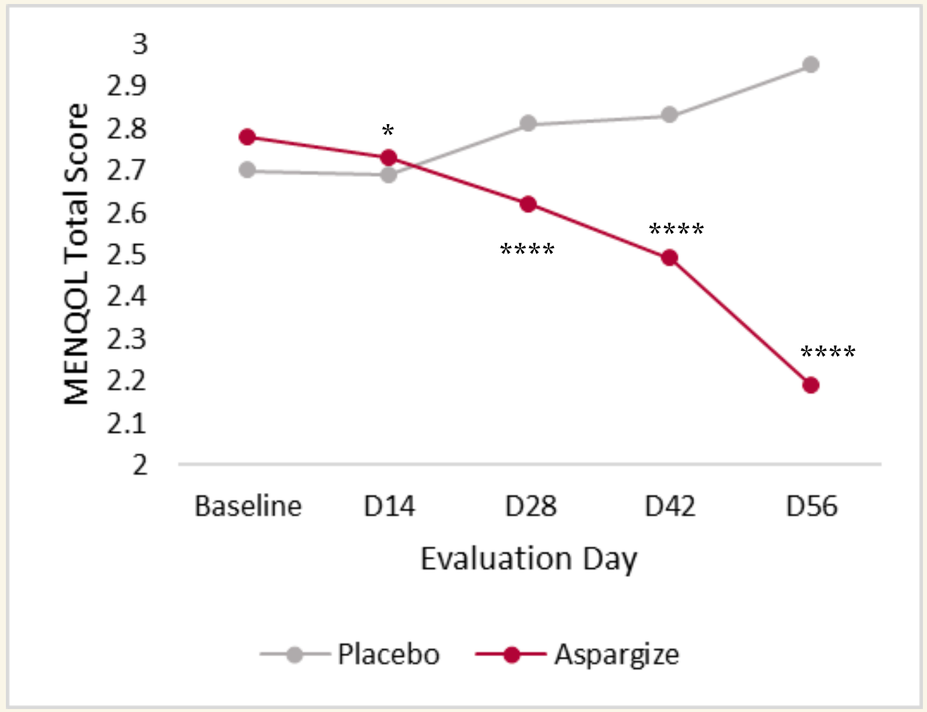
**p < 0.01, ****p < 0.0001 vs placebo



49 % Reduction
in overall menopausal symptoms as compared to placebo

SUPPORTING OVERALL QUALITY OF LIFE, BEYOND HORMONAL HEALTH

*p < 0.05, ****p < 0.0001 vs placebo



26% Reduction
in Total MENQOL Score as compared to placebo

58 % Improvement (POMS)
in overall Mood as compared to placebo

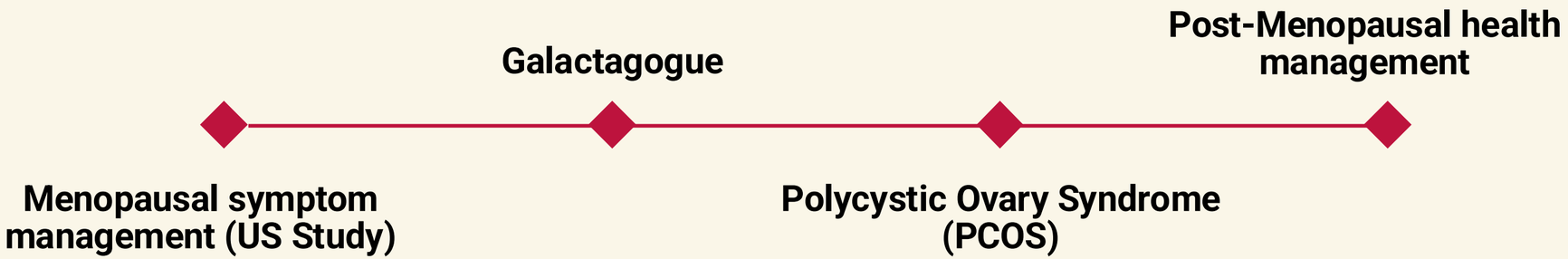
32 % Improvement (PSQI)
in overall Sleep quality as compared to placebo

27 % Reduction (PSS 10)
in Stress levels as compared to placebo

Supported Health Claims

- Supports overall menopausal symptom relief, starting 2 weeks
- Helps Improve overall menopausal quality of life
- Supports improved sleep quality
- Helps reduce stress and perceived anxiety

Expanding the Clinical Evidence, Aspargize™



GINGER IN TRADITION

With ~3,000 years of traditional use for digestive and gastrointestinal wellness, emerging research suggests ginger's potential role in pain management, particularly in supporting women with primary dysmenorrhea.

ACTIVE CONSTITUENTS

- Gingerols
- Shogoals

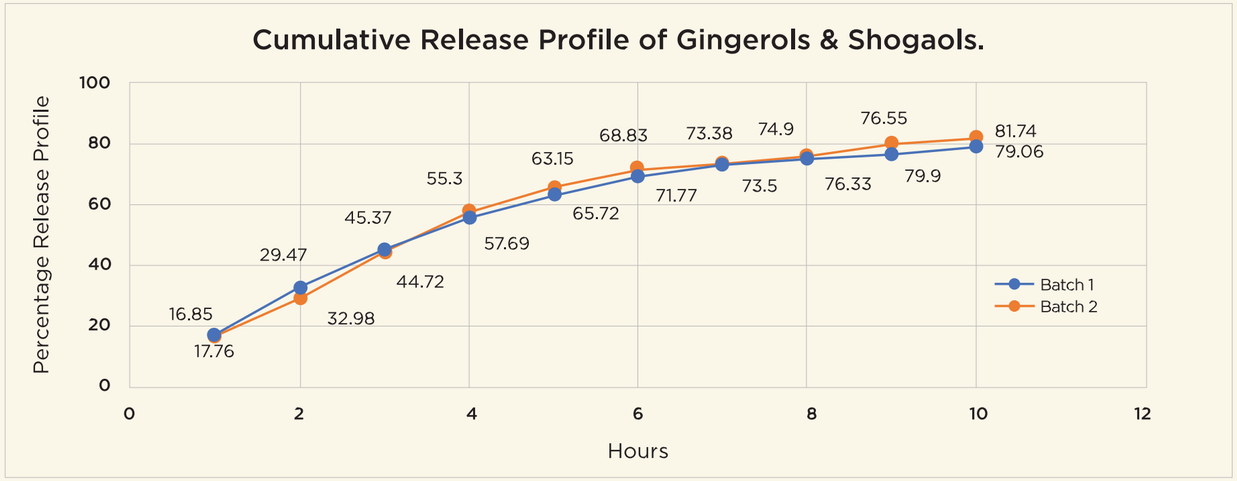
pK CHALLENGE

- Rapid metabolism of bio-actives
- Short half-life
- Low tolerability

GINGEREN™

Long-Acting Ginger Granules

Long-acting, sustained-release ginger granules designed to deliver the actives in a sustained release manner for improved efficacy at a low dose



80% sustained release of gingerols achieved **during 10th hour**

High Payload

Standardized to NLT 20% gingerols, making it ideal for an ultra low dosing

Improved Tolerabilty

Sustained release of the actives, allowing a dose up to 25mg to be well tolerated without causing any gastrointestinal irritation

CLINICAL EVIDENCE SUPPORTING MENSTRUAL COMFORT

Condition

Sexually active females with dysmenorrhea symptoms

Participants

N=100 females;
Age: 20-30 Yrs

Duration & Evaluation

Pre-dose: C1 & C2
Post-dose: C3, C4 & C5

Dose

200mg /Day

Primary End point

- Dysmenorrhic VAS score
- WaLIDD score

Secondary Outcomes:

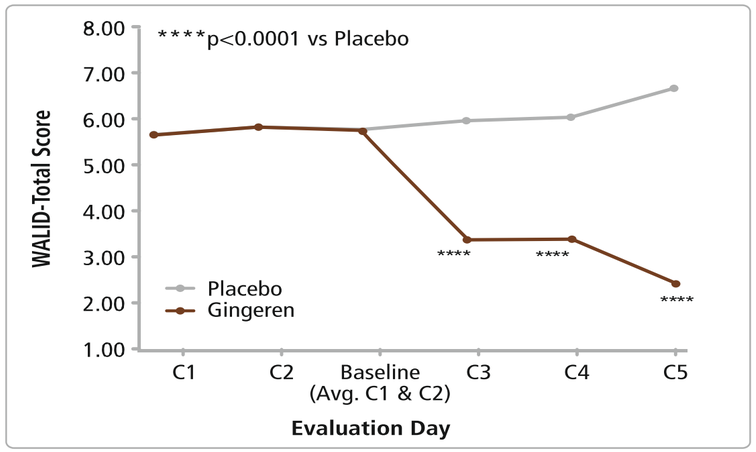
- Change in physical, mood and behavioural symptoms (Intensity of menstrual cramps, Low Back Pain, Fatigue, Nausea & Vomiting, Lack of Energy, Mood Swings and Headache)through Menstrual distress questionnaire
- Female sexual function-index
- Sexual quality of life-Female
- General wellness – gastric discomfort, cold symptoms, digestion related, BMI and weight etc.
- Menstrual fluid flow (through menstrual cups)

Exploratory Outcomes:

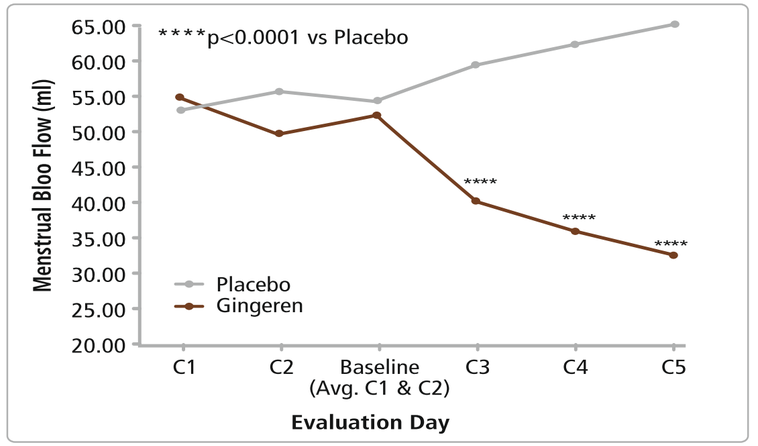
- PGF2 alpha- ELISA from systemic blood
- Change in vaginal microbiome (Gonococcal Chlamydial cultures and Lactobacilli) Lab test on third day of menstrual cycle
- Estrogen from systemic blood

MENSTRUAL COMFORT – From Cycle 1 onwards...

Gingeren™ at a dose of 200 mg/day, delivers broad spectrum clinical benefits, **starting Cycle 1 onwards, post dosing.**



68 % Reduction in Total WALLID score
(Working ability, Location of pain, Intensity of pain, and Days of pain) as compared to placebo

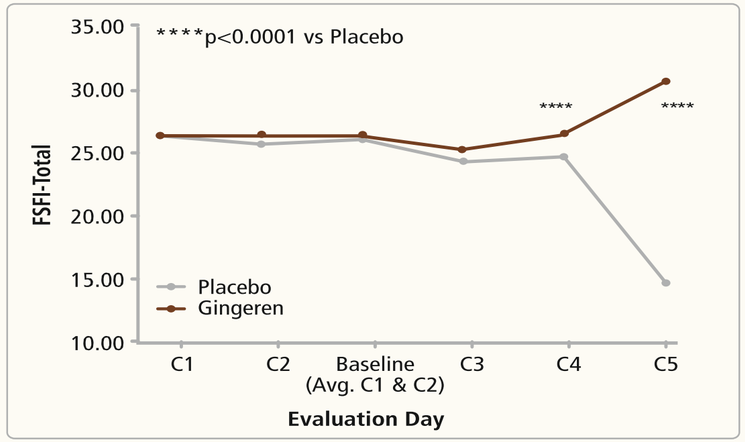


44 % Reduction in Menstrual fluid flow
as compared to placebo

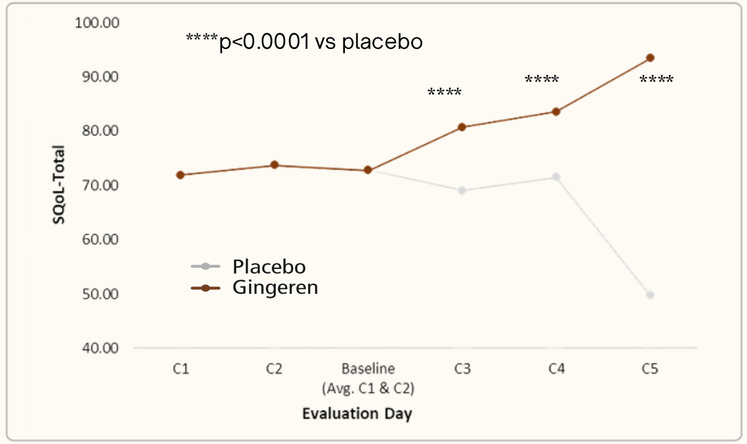
57% reduction in menstrual related distress as compared to placebo

17% reduction in $PGF_2\alpha$ as compared to placebo

CLINICAL EVIDENCE SUPPORTING FEMALE SEXUAL & GENERAL WELLNESS



51.58% improvement in FSFI-Total (sexual desire, arousal, lubrication, orgasm, satisfaction, and pain) as compared to placebo



47% improvement in Sexual quality of life as compared to placebo

56% reduction in gastric discomfort as compared to placebo

38% reduction in cold symptoms as compared to placebo

64% improvement in digestive health as compared to placebo

INGREDIENT SELECTION GUIDE

Note: Aspargize and Gingeren are individual supplement ingredients, not a combined product. Choose based on primary indication.

ASPARGiZE™

Fast- Acting Shatavari

- Alkemist Labs Assured™ Botanical
- Onset of action starting week 2 onwards
- Bi-directional hormone support
- Menopausal symptom support
- Broader women's vitality formulas
- Suitable for: Tablets/Capsules, Gummies, Shots & RTDs
- Dose: 400mg/day

GINGEREN™

Long-Acting Ginger Granules

- Alkemist Labs Assured™ Botanical
- Onset of action starting cycle 1 onwards
- Reduced prostaglandin synthesis
- Menstrual symptom & sexual wellness support
- General health formulas
- Suitable for: Capsules
- Dose: 200mg/day

QUESTIONS?

LET'S DISCUSS

Thank You for your Attention!

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BIOPHARMA

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