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A study testing whether collagen powder helps improve skin

Submission date	Recruitment status	[_] Prospectively registered
28/08/2025	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
01/09/2025	Completed	[_] Results
Last Edited	**Condition category**	[_] Individual participant data
01/09/2025	Skin and Connective Tissue Diseases	[X] Record updated in last year

Plain English summary of protocol

Background and study aims

Dietary consumption of food supplements has been found to modulate skin functions and can therefore be useful in the treatment of skin aging. Prior studies have demonstrated that oral intake of bioactive collagen peptides can reduce skin wrinkles, improve skin elasticity, and have positive effects on dermal matrix synthesis. This study was conducted to assess the effect on facial skin appearance of a collagen powder supplement when consumed daily for 8 weeks by women with mild to moderate periocular fine lines and wrinkles, and fine lines, wrinkles, sagging, and lack of radiance on the global face.

Who can participate?

Adult female healthy volunteers aged over 45 years

What does the study involve?

Participants were randomly assigned to either a dummy (placebo) supplement group or a collagen supplement group. Participants consumed the assigned supplement once per day. The participants were instructed to stir one scoop (2.6g) of the test product into a hot or cold beverage and consume, once daily. They could take the product at any time of the day, before or with food. They stored the products in a cool, dry place that is away from direct heat and light (including sunlight) and protected from contamination.

They were also instructed to wash their face with the provided cleanser as they normally would, and not to use the cleanser if they normally don’t wash their face with anything except water. Once daily, they could apply a sufficient amount of the provided moisturizer to the entire face. But they were instructed not to apply the moisturizer within 24 hours before a clinic visit.

What are the possible benefits and risks of participating?

Benefits

The primary anticipated benefit of this intervention is improved skin health. Collagen supplementation has been associated with enhancements in skin hydration, elasticity, and overall appearance in prior studies. Participants may therefore experience modest but measurable improvements in dermatological outcomes during the course of the trial.

Risks
The risks of participation are expected to be minimal. Collagen is generally recognized as safe, and adverse events are uncommon and typically mild (e.g., transient gastrointestinal discomfort). No serious risks are anticipated. Participants may not personally experience any benefit, but the knowledge gained from the study could contribute to a better scientific understanding of collagen's role in skin health.

Where is the study run from?
Wellness Discovery Labs, USA. Data was collected at SGS Stephens, Inc, Dallas Research Center, USA.

When is the study starting and how long is it expected to run for?
May 2022 to August 2022

Who is funding the study?
Specnova LLC, USA.

Who is the main contact?
Irina Lorenzi, irina@specnova.com

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
SGS Stephens, Inc, number: C22-D090, protocol number: Pro00063299

Study information

Scientific Title
A double-blind, placebo-controlled clinical study to assess the skin benefits of a collagen powder supplement

Study objectives
This single-center, double-blind, randomized, placebo-controlled clinical trial was conducted for Specnova LLC to assess the effect on facial skin appearance of the Sponsor's collagen powder supplement when consumed daily for 8 weeks by women with mild to moderate periocular fine lines and wrinkles, and fine lines, wrinkles, sagging, and lack of radiance on the global face.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 03/05/2022, Advarra Institutional Review Board (6100Merriweather Drive, Suite600, Maryland, 21044, United States of America; +1 4108842900; institutions@advarra.com), ref: IRB#00000971

Study design
Double-blind randomized placebo-controlled clinical study

Primary study design
Interventional

Study type(s)
Efficacy

Health condition(s) or problem(s) studied
Assess the effect on facial skin appearance of the collagen powder supplement when consumed daily for 8 weeks by women with mild to moderate periocular fine lines and wrinkles, and fine lines, wrinkles, sagging, and lack of radiance on the global face.

Interventions
The research team and study participants were blinded to the treatment assignment and were not made aware of receiving the placebo or the active product. Before the start of the study, SGS Stephens generated a randomization list to establish treatment assignment to 1 of the treatment cells (cell 1 or cell 2). The list was first created by concatenating blocks of size 4 subjects: 2 for cell 1 and 2 for cell 2. The list was then randomized by variables from 2 independent uniform distributions: one to randomize subjects. Within a block and one to randomize blocks. After the randomization list was created, treatment was assigned to each subject number accordingly.

During the course of the study, subjects consumed the assigned supplement once per day as directed. The participants were instructed to stir one scoop (2.6g) of the test product into a hot or cold beverage and consume, once daily. They could take the product at any time of the day, before or with food. They stored the products in a cool, dry place that is away from direct heat and light (including sunlight) and protected from contamination.

Additionally, all subjects used the supporting materials (Gentle Skin Cleanser and Daily Facial Moisturizer with Sunscreen Broad Spectrum SPF 15) as directed.

At week 1, a clinic staff member called each subject to confirm that subjects were consuming the assigned supplement and using the supporting materials as instructed.

Clinical evaluations were conducted at visit 1 (baseline), visit 2 (week 4), and visit 3 (week 8). Subjects participated in the following procedures at each time point (unless otherwise indicated):

• Clinical Grading of Efficacy Parameters
Each subject was clinically graded for fine lines and wrinkles on the periocular area and global face; skin smoothness (visual) on the cheeks; and firmness (sagging) (visual), radiance, and overall appearance of skin condition (healthy) on the global face.

Additionally, triplicate pinch recoil measurements were performed on the left crow's feet area to assess skin elasticity/resiliency.

• Digital Imaging Using Portrait Photo Station
Full-face digital images were taken from each subject (left, center, and right views) using the SGS Stephens, Inc. portrait photo station with a Canon Mark II 7D digital SLR camera (Canon Incorporated, Tokyo, Japan) and a Canon EF-S 60mm f/2.8 macro lens under visible lighting mode.

• Antera 3D Imaging
Digital images were taken from each subject's left or right cheek, as determined by the grader, using Antera 3D® imaging (Miravex Ltd, Dublin, Ireland).

After study completion, images were analyzed for mean roughness (Ra).

• Cutometer Measurements
Duplicate measurements were taken from adjacent sites on each subject's right under-eye orbital bone using Cutometer MPA 580 (Courage + Khazaka electronic GmbH, Köln, Germany) to measure the viscoelastic properties of the skin.

• Self-assessment Questionnaire
At week 8, subjects completed a Sponsor-provided self-assessment questionnaire regarding skin improvements and product perception.

Intervention Type
Supplement

Primary outcome(s)
The following primary outcome measures were assessed at clinical evaluations conducted at visit 1 (baseline), visit 2 (week 4), and visit 3 (week 8):
1. Clinical Grading of Efficacy Parameters: Each subject was clinically graded for fine lines and wrinkles on the periocular area and global face; skin smoothness (visual) on the cheeks; and firmness (sagging) (visual), radiance, and overall appearance of skin condition (healthy) on the global face.
2. Skin elasticity/resilience was measured using triplicate pinch recoil measurements performed on the left crow's feet area

Key secondary outcome(s))

The following secondary outcome measures were assessed at clinical evaluations conducted at visit 1 (baseline), visit 2 (week 4), and visit 3 (week 8), unless stated:
1. Mean skin roughness was measured using the following digital images after study completion:
1.1. Full-face digital images captured using SGS Stephens, Inc. portrait photo station with a Canon Mark II 7D SLR camera and a Canon EF-S 60mm f/2.8 macro lens under visible lighting mode
1.2. Cheek images captured using Antera 3D® imaging system
2. Viscoelastic properties of adjacent skin sites on each subject's right under-eye orbital bone the skin were measured using a Cutometer MPA 580
3. Skin improvements and product perception were measured using a Sponsor-provided self-assessment questionnaire at week 8

Completion date
22/08/2022

Eligibility

Key inclusion criteria
Women

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
45 years

Upper age limit
71 years

Sex
Female

Total final enrolment
89

Key exclusion criteria
Women with limited fine lines and facial wrinkles

Date of first enrolment
19/05/2022

Date of final enrolment
19/08/2022

Locations

Countries of recruitment
United States of America

Study participating centre
SGS Stephens, Inc
Dallas Research Center
1801 North Glenville Drive, Suite 20
Richardson
United States of America
75081

Sponsor information

Organisation
Specnova LLC

Funder(s)

Funder type
Other

Funder Name
Naomi Whittel

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analyzed during the current study will be available upon request from Irina Lorenzi, irina@specnova.com. Informed consent was obtained.

IPD sharing plan summary
Available on request