

VOLLAGEN® GLP-1 study

Supporting skin and hair during GLP-1-assisted weight loss

Protec Nutra Ltd commissioned Ayton Global Research to conduct an in-home user study on Vollagen® VGN4 (plant-source collagen supplement) in adults using GLP-1 injections or medication. The aim was to establish the perceivable benefits to skin and hair.

STUDY AT A GLANCE

60-day UK in-home user study • 1,000 mg/day Vollagen® VGN4 • GLP-1 medication users • 50 subjects

Prepared September 2026

Executive Summary

GLP-1 receptor agonist therapies can produce substantial weight loss, but rapid changes in body weight and reduced food intake can be accompanied by unwanted changes in appearance, including skin laxity, facial-volume loss and hair shedding. These concerns create a clear need for technologies that support skin and hair, including specifically in GLP-1 users.

Vollagen® VGN4 has now been evaluated specifically in adults using GLP-1 injections or medication. In Ayton Global Research study STU8345, participants took 1,000 mg/day of Vollagen® for eight weeks. The study used a predefined 66% satisfaction threshold for claim substantiation.

A selection of headline Vollagen® benefits in GLP-1 users

Measure	%
Skin feels hydrated – week 4	80.39%
Skin looks hydrated – week 4	80.39%
Skin looks radiant – week 4	74.51%
Skin feels more supple – week 4	72.55%
Skin feels firmer – week 4	72.55%
Hair feels healthier – week 8	66.67%
Hair looks shinier – week 8	66.67%

The strongest indications, as expected, related to skin hydration, radiance, suppleness and firmness, together with healthier-feeling and shinier-looking hair.

1. Background: a patient-reported study exploring the relationship between GLP-1 and skin & hair issues

Skin sagging, facial volume and hair loss

A 2026 patient-reported study found a strong relationship between the amount of weight lost and visible appearance changes. Among people losing more than 20% of body weight, 72% reported skin sagging, 52% hair loss and 50% decreased facial volume.

Appearance changes reported by degree of weight loss

Measure	%
Skin sagging – <10% loss	15.00%
Skin sagging – 10–20% loss	44.00%
Skin sagging – >20% loss	72.00%
Hair loss – <10% loss	17.00%
Hair loss – 10–20% loss	30.00%
Hair loss – >20% loss	52.00%
Facial volume loss – <10% loss	13.00%
Facial volume loss – 10–20% loss	37.00%
Facial volume loss – >20% loss	50.00%

A separate radiographic study of 20 GLP-1 users reported a median 9% reduction in total midfacial volume after an average 11.0 kg weight loss, with approximately 7% midfacial volume loss per 10 kg of weight lost. This is an important distinction: a nutritional supplement cannot replace lost facial fat, but supporting the quality of the overlying skin is a relevant complementary objective.

Hair loss is increasingly documented

Hair shedding is also increasingly recognised in the GLP-1 literature. A 2026 meta-analysis involving 4,114 GLP-1 users reported an overall hair-loss event rate of 3.9% and a 3.25-fold higher risk compared with placebo. Regulatory trial data also report hair loss with semaglutide and tirzepatide, particularly in women. Rapid weight loss itself is a plausible contributor through telogen effluvium, while reduced food intake may compound the issue if protein or micronutrient intake becomes inadequate.

2. What is Vollagen® VGN4?

Vollagen® is a plant-source alternative to conventional animal-derived collagen. Vollagen is a complex of amino acids provided in proportions designed around the amino-acid profile of collagen, and specifically mimics the composition and structure of Hydrolysed Collagen (the form of Collagen consumed in supplements). Rather than supplying animal collagen, Vollagen® offers unique opportunities for products within the Vegan, Vegetarian, Plant-source and Cruelty-free sectors.

Vollagen® VGN4 consists of: L-Proline, Glycine, L-Glutamic Acid, L-Alanine, L-Arginine, L-Aspartic Acid, L-Lysine HCl, L-Serine, L-Leucine, L-Valine, L-Phenylalanine, L-Threonine, L-Isoleucine, L-Histidine, L-Tyrosine and L-Methionine.

3. Vollagen® VGN4 Study - design and methodology

Study element	Detail
Study	Ayton Global Research STU8345 / STC20164
Population	Adults using GLP-1 injections or medication
Active volunteers	58
Respondents included in results	51
Intervention	Vollagen® VGN4
Daily dose	1,000 mg/day; 2 capsules with a meal
Duration	60-day / 8-week in-home user study
Location	United Kingdom
Study dates	18 June – 12 August 2026
Assessment	Questionnaires at 4 and 8 weeks
Response scale	9-point scale
Satisfied	Scores 6–9
Predefined claim pass mark	≥66% satisfied

Study design and claims jurisdiction

Although Collagen is a food supplement, claims relating to perceived beauty benefits require suitable evidence to support efficacy. The Advertising Standards Authority (ASA) state:

‘Claims not caught by the Food rules still need to be supported by scientific evidence. Rule 12.1 states that substantiation will be assessed on the basis of the available scientific knowledge. It states that marketers should provide trials conducted on people only “if relevant”. A beauty claim would still need to be supported with suitable evidence proving the efficacy of the product.’ (Ref 1)

Ayton Global Research (AGR) specialises in substantiating perception claims, and as beauty claims for supplements are often subjective, has vast experience in testing this product category. Therefore, AGR has conducted an in-home user study on Vollagen® to establish the perceivable beauty benefits and substantiate marketing claims.

Methods

This consumer research study was conducted in the United Kingdom. The study was a 60-day single-placement in-home user study and an eight-week protocol, with study performance dates recorded from 18 June to 12 August 2026. Participants were instructed to take a 1000 mg dose of Vollagen® VGN4 as two capsules each day with a meal, at breakfast or lunch, and to continue use throughout the trial.

(i) Volunteers

A total of 58 volunteers actively participated, and 51 respondents were included in the study result data. The final respondent panel reported in the study was 100% female. The largest age group was 40-49 years (50.98%), followed by 50-59 years (31.37%), 30-39 years (13.73%) and 60+ years (3.92%).

Participants were recruited from profiled Clicks Research users and selected against the study criteria, including age and relevant visible skin concerns such as fine lines and wrinkles, dull complexion, slack skin, uneven tone, dark circles, spots or blemishes.

Seven participants did not complete the study. One of the 58 active volunteers reported an adverse reaction. The associated undesirable-event questionnaire described an upset stomach; the respondent stated that it could have been unrelated but that it coincided with use of the supplement. Protec Nutra Ltd can confirm it has not to date received any reports of such adverse reaction since the launch of Vollagen®,

(ii) Questionnaire, Data Management, & Statistics

Questionnaires were completed after four weeks and after eight weeks of use. Perception statements used a nine-point response scale. For the distribution-of-scores analysis, scores 6-9 were categorised as Satisfied, 5 as Neutral and 1-4 as Not Satisfied. A client-assigned 66% satisfaction pass mark was used for claim substantiation, with results at or above this level identified by an asterisk in the study report. The report also provides 95% confidence intervals and Chi-Squared Test outputs for individual questions. Study work was conducted under the Ayton Global Research Quality Management System, ISO 9001 and applicable ESOMAR, MRS and/or MRC principles and guidelines.

4. Key Vollagen® results in GLP-1 Users

After four weeks, the strongest early skin perceptions were hydration and radiance. 80.39% of respondents agreed that their skin felt hydrated, and the same percentage agreed that it looked hydrated. Radiance reached 74.51%, while 72.55% agreed that their skin felt more supple and 72.55% that it felt firmer. The supplement also fitted well with the daily routine for 90.20% of respondents, the highest satisfaction result recorded at week four.

Hydration

80.39%

Vollagen® was shown to improve perceived skin hydration in GLP-1 users.

After four weeks, 80.39% said their skin felt hydrated. At eight weeks, 76.47% continued to report hydrated-feeling skin.

80.39%

Vollagen® was shown to improve the appearance of skin hydration in GLP-1 users.

After four weeks, 80.39% said their skin looked hydrated. At eight weeks, 74.51% continued to report hydrated-looking skin.

Radiance

74.51%

Vollagen® was shown study to improve skin radiance in GLP-1 users.

74.51% reported radiant-looking skin after four weeks and 72.55% after eight weeks.

Suppleness

72.55%

Vollagen® was shown to improve perceived skin suppleness in GLP-1 users.

72.55% reported more supple-feeling skin after four weeks; 68.63% remained satisfied at eight weeks.

Firmness

72.55%

Vollagen® was shown to improve perceived skin firmness in GLP-1 users.

72.55% reported firmer-feeling skin after four weeks and 66.67% at eight weeks.

Vollagen® VGN - skin results in GLP-1 users

Measure	%
Feels hydrated – 4 weeks	80.39%
Feels hydrated – 8 weeks	76.47%
Looks hydrated – 4 weeks	80.39%
Looks hydrated – 8 weeks	74.51%
Radiant – 4 weeks	74.51%
Radiant – 8 weeks	72.55%
Supple – 4 weeks	72.55%
Supple – 8 weeks	68.63%
Firmer – 4 weeks	72.55%
Firmer – 8 weeks	66.67%

At eight weeks, the principal hydration and radiance measures remained among the strongest results. 76.47% of respondents agreed that their skin felt hydrated, 74.51% that it looked hydrated and 72.55% that it looked radiant. Skin suppleness remained above the pass mark at 68.63%, and firmness met the pass mark at 66.67%.

5. Vollagen® VGN-4 hair results in GLP-1 Users

Hair-related perceptions strengthened over the study period, with two key results:

66.67%

Vollagen® was shown to help hair feel healthier in GLP-1 users.

66.67% of participants reported healthier-feeling hair after eight weeks.

66.67%

Vollagen® was shown to improve the appearance of hair shine in GLP-1 users.

66.67% of participants reported shinier-looking hair after eight weeks.

Vollagen® VGN - hair results in GLP-1 users

Measure	%
Hair feels healthier	66.67%
Hair looks shinier	66.67%

These findings are particularly relevant because hair loss and hair-quality concerns are increasingly reported during substantial GLP-1-associated weight loss. With hair improvements typically taking several weeks to see initial results, and multiple months for meaningful results, these observations within 8 weeks of Vollagen® VGN4 supplementation were particularly encouraging and exciting.

6. Vollagen® VGN4 - Headline claim platform in GLP-1 users

Recommended headline claim	Supporting result
Vollagen® has been shown in a consumer study to improve perceived skin hydration in GLP-1 users.	80.39% hydrated-feeling skin at 4 weeks; 76.47% at 8 weeks
Vollagen® has been shown in a consumer study to improve the appearance of skin hydration in GLP-1 users.	80.39% hydrated-looking skin at 4 weeks; 74.51% at 8 weeks
Vollagen® has been shown in a consumer study to improve skin radiance in GLP-1 users.	74.51% at 4 weeks; 72.55% at 8 weeks
Vollagen® has been shown in a consumer study to improve perceived skin suppleness in GLP-1 users.	72.55% at 4 weeks; 68.63% at 8 weeks
Vollagen® has been shown in a consumer study to improve perceived skin firmness in GLP-1 users.	72.55% at 4 weeks; 66.67% at 8 weeks
Vollagen® has been shown in a consumer study to help hair feel healthier in GLP-1 users.	66.67% at 8 weeks
Vollagen® has been shown in a consumer study to improve the appearance of hair shine in GLP-1 users.	66.67% at 8 weeks

Supportive claims angles

“4 out of 5 GLP-1 users said their skin felt and looked hydrated after just four weeks of taking Vollagen®.”

“3 in 4 GLP-1 users reported radiant-looking skin after four weeks of taking Vollagen®.”

“Over 70% of GLP-1 users reported more supple-feeling and firmer-feeling skin after four weeks of taking Vollagen®.”

“Two-thirds of GLP-1 users reported healthier-feeling and shinier-looking hair after eight weeks of taking Vollagen®.”

7. Commercial opportunities with Vollagen® in Nutricosmetics, and specifically in relation to GLP-1

A strong opportunity is to establish advanced Nutricosmetic product propositions, potentially specifically citing benefits for people using GLP-1 medication. The positioning can connect three facts:

1. Substantial weight loss can be accompanied by visible skin and hair concerns.
2. Adequate nutrition and protein remain important during GLP-1 treatment.
3. Vollagen® has direct consumer-perception data in GLP-1 users.

Opportunity	Why it matters	Vollagen® evidence
GLP-1 skin hydration support	Reduced intake and rapid weight loss make skin quality a relevant concern.	80.39% reported hydrated-feeling and hydrated-looking skin at 4 weeks.
Skin quality during body-composition change	Skin sagging and facial-volume change are common concerns with large weight loss.	Radiance, suppleness and firmness all met the study threshold.
GLP-1 hair-quality support	Hair shedding is increasingly documented during rapid weight loss and GLP-1 treatment.	66.67% reported healthier-feeling hair and 66.67% shinier-looking hair at 8 weeks.
Plant-source collagen positioning	Collagen products are animal-derived.	Vollagen® VGN4 provides a plant-source amino-acid complex designed around collagen's amino-acid profile. Vegan, Vegetarian, Plant-source and Cruelty-free.
Low-dose format	Large gram-dose collagen powders can be inconvenient.	STU8345 evaluated a convenient 1,000 mg/day dose, delivered in two capsules.

8. Conclusion

GLP-1-assisted weight loss is creating a new nutritional and Nutricosmetic (beauty-from-within) need. The emerging literature shows that substantial weight reduction can be accompanied by skin sagging, loss of facial volume and hair shedding. These concerns become particularly prominent in people achieving the largest reductions in body weight.

Against that background, Vollagen® VGN4 has a highly relevant position: it is a plant-source collagen-profile amino-acid formulation that has been evaluated specifically in people taking GLP-1 medication.

The study demonstrated strong consumer perceptions for skin hydration, radiance and suppleness in GLP-1 users, with hydration, radiance, suppleness and firmness at or above the predefined 66% satisfaction pass mark after eight weeks. Hair health and shine also reached the predefined pass mark at week eight.

The seven strongest claim-supporting outcomes

Measure	%
Skin feels hydrated	80.39%
Skin looks hydrated	80.39%
Skin looks radiant	74.51%
Skin feels more supple	72.55%
Skin feels firmer	72.55%
Hair feels healthier	66.67%
Hair looks shinier	66.67%

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