



VOLLAGEN® VGN4 CONSUMER STUDY

Introduction

During the Spring and early Summer of 2023, we engaged Ayton Global Research (AGR) to conduct a Consumer Study with Vollagen[®] VGN4 to understand its efficacy at a low dose of 1g per day.

The basis of the study was to really put Vollagen® through its paces, by:

1) Choosing the late Spring and Summer months.

Skin is already benefiting from higher hydration levels from April into the Summer, compared to the Autumn and Winter months, so is generally in a better overall condition. Therefore, achieving perceivable benefits over short periods of time is typically more challenging.

2) Choosing a low dose.

Hydrolyzed Collagen supplements are typically consumed at doses of 5-10g per day. Vollagen[®] is expected to offer like-for-like efficacy at this level of daily intake, due to mimicking the composition, but a primary aim of this study was to really test Vollagen[®] and understand if significant benefits could be perceived at a lower daily dose.

Methods

This consumer research study was conducted over 60 days from April to June 2023 in the form of an in-home user trial in the UK. The study protocol was developed and executed in accordance with Good Clinical Practice (GCP) (Ref 2), the Market Research Society (MRS) code of conduct for ethical market research practices (Ref 3), and the ICC/ESOMAR Code (Ref 4). The participant's data and responses have been reported in accordance with the General Data Protection Regulation (GDPR) (Ref 5).

(i) Volunteers

A total of 45 female & 5 male volunteers, aged between 35 and 75 years actively participated in the study. 46% of volunteers were aged between 40-49 years. 5 participants were excluded as they did not complete the full questionnaire. 3 participants were excluded as they reported adverse reactions to the product and therefore did not use the product for the full study duration. Volunteers were recruited through AGR's search engine optimisation and referrals between volunteers. Volunteers were selected according to the profile criteria that they must have visible ageing skin including fine lines and wrinkles, dark circles under the eyes, dull skin, and breakouts or blemishes. Eligible volunteers were invited to take part in the study, and acceptance was purely voluntary.





(ii) Questionnaire, Data Management, & Statistics

The study comprised of a questionnaire with a total of 37 questions relating to product and brand usage, influences, claims and advertising. All data was reported through the Ayton System Software. Photos were collected from the participants on day 0, day 28 and day 56 to provide a visible support of the data. The photos were taken by the participants at home.

A 95% confidence interval was applied to all report statistics. Single and multiple answered questions were analysed through Chi-Squared Test. Open answer questions were analysed by the author through the sentiment analysis technique. Analysis was carried out in accordance with the procedures of the Ayton Global Research Quality Management System, ISO 9001 quality standard, ESOMAR, MRS and/or MRC principles and guidelines or any other applicable standards associated with the way in which the study was carried out.

First Impressions

The participants were asked after 4 weeks for their first impressions of the supplement to assess the hydration, radiancy & evenness of skin tone. A large number of participants (62%) agreed their skin felt hydrated and the skin looked hydrated (64%), while a lower number (58%) agreed their skin looked radiant and (56%) skin tones appear more even. All scored high averages, showing the consumers felt more positive and comfortable moving forward with the study (Fig1).

Question	N = Satisfied	N = Neutral	N = Not Satisfied	% = Satisfied	% = Neutral	% = Not Satisfied
My skin feels hydrated	31	12	7	62	24	14
My skin looks hydrated	32	11	7	64	22	14
My skin looks radiant	29	13	8	58	26	16
My skin tone appears more even	28	14	8	56	28	16

Figure 1: Summary table of questions asked 'After 4 weeks use'

Perceivable Skin Benefits

The data clearly shows that continued use of the supplements improves the noticeable physical benefits. By comparing the results from the 4 and 8 week questionnaire timepoints, we can see the positive responses increase, and even claims that did not have a majority agreement in week 4, gained a larger percentage of the agreement taking them into statistical significance when asked during week 8. The feel of the skin improved over the 8 week duration with skin hydration (80%), firmness (80%) and youthfulness (68%) coming out on top.





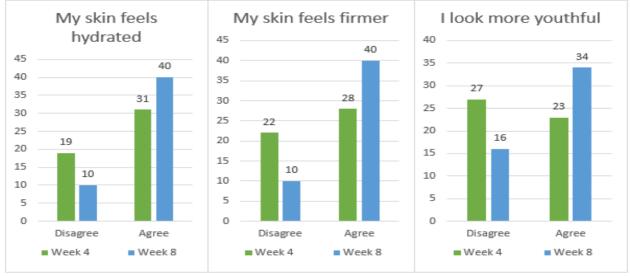


Figure 2: % of positive respondents to 'My skin feels hydrated' 'My skin feels firmer' and 'I look more youthful'.

The anti-ageing benefits also increased over continued use. Skin suppleness has youthful connotations and notably fine lines, and wrinkles were also visibly reduced (68%). Breakouts were less frequent for the participants (64%) and the appearance of dark circles under the eyes (72%) were reduced showing that the supplement is effective at balancing the skin.

As well as the appearance of imperfections improving on the skin, the supplements impacted the overall appearance of the skin. The skin was perceived as brighter (70%) and more radiant (78%) and hair felt healthier (72%).

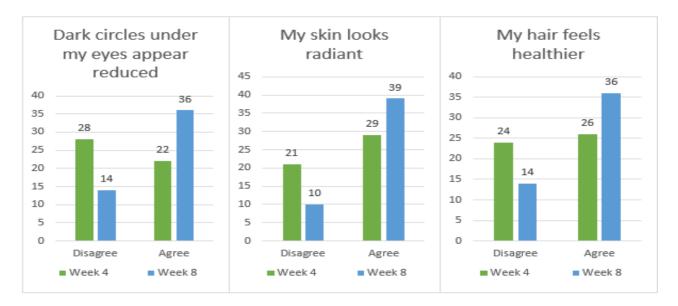


Figure 3: % of positive respondents to 'Dark circles under my eyes appear reduced', 'My skin looks radiant' and 'My hair feels healthier'.





Improvement in Nail Health

There was a noticeable change to the health of nails, the increase from 4 weeks to 8 weeks had a significant difference growing from 60% agreement to 66%. At 8 weeks the participants were also asked if nails felt less prone to breakages, which scored an agreement of 68%.

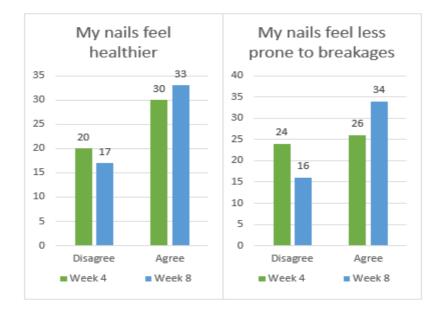


Figure 4: % of positive respondents to 'My nails feel healthier' and 'My nails feel less prone to breakages'.

The testimonials left by the respondents included many comments specifically about nail condition. One respondent commented 'I really like this product and notice a significant difference in my fine lines and nail growth. I intend to keep using a collagen supplement' Another stated, 'Helps with many aspects of the health of my body, my nails, hair and skin feels healthier, brighter which brings out more confidence in myself!'

Conclusions

The Consumer Study clearly demonstrated highly perceivable benefits when using Vollagen® VGN4 in a dose of 1g per day, over an 8-week period. With data points at both 4-week and 8-week points, the results showed the perceived benefits increasing as the study progressed, with noticeable benefits to skin, hair & nails. We can expect that continued use of the product beyond an 8-week period would provide further acceptance and improvement to performance with regular usage. Given the low dosage tested and composition to mimic Hydrolyzed Collagen, we can also be confident of additional efficacy and perceivable benefits at higher doses, closer to those often seen in the marketplace for conventional animal-origin Collagen supplements.







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