



### Vollagen<sup>®</sup> Background: what is Collagen?

- Collagen, obtained from animal sources including fish, is the main structural protein in the extracellular matrix. Collagen is composed of Amino Acids and provides structural support to skin, hair, nails, ligaments and tendons.
- As we age, Collagen production slows and Collagen quality diminishes. Even by the age of 25 collagen levels start to deplete. By the age of 50, collagen levels are typically lost by around 50%.
- A reduction in Collagen level and quality results in wrinkle formation and skin loses its firmness and tone. It also compromises the skin's barrier and causes dryness, breakouts and blemishes.



# Vollagen<sup>®</sup>: "Vegan Collagen" /'vɒlədʒ(ə)n/

- Vollagen<sup>®</sup> is a complex of Amino Acids in the same proportion as those found within Collagen, but with three key advantages over Collagen:
  - 1. The proprietary process uses only plant-source starting material and provides the Amino Acids in the exact desired ratio and in a water-dispersible format.
  - 2. The Amino Acids are already isolated so ready for the body to easily absorb them.
  - 3. Vollagen<sup>®</sup> is suitable for Vegans and Vegetarians.
- Independent consumer testing has shown incredible results within 60 days of use.
- Vollagen<sup>®</sup> is supplied as a Cold water-dispersible powder.

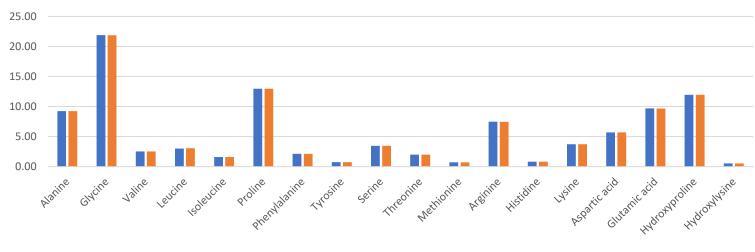


# Vollagen<sup>®</sup> Origin and production process

- Unlike Collagen, which is from animal sources, Vollagen<sup>®</sup> is 100% plant-origin. It is produced using a proprietary, multistep fermentation and microencapsulation process with a starting material of Corn Starch (non-GMO).
- The fermentation process allows us to obtain the exact combination and ratio of amino acids that we desire.
- This, coupled with the microencapsulation steps, allows us to produce a cold water-dispersible powder. This is in stark contrast to the simply combining the equivalent individual amino acids, which exhibit very low solubility.
- Vollagen<sup>®</sup> is suitable for all demographics, including the Vegan and Vegetarian markets.



# Vollagen<sup>®</sup> Comparison with Collagen Amino Acid structure



Amino Acid structure

Vollagen Human Collagen

- Vollagen<sup>®</sup> is composed of the same
  18 Amino Acids as Human Collagen<sup>1</sup>
- The blue bars show the levels and ratios of amino acids in Human Collagen, the orange bars show the identical composition of Vollagen<sup>®</sup>.

<sup>1</sup> Source: The Amino Acid Composition of Mammalian Collagen and Gelatin. J.E. Eastoe, The British Gelatine and Glue Research Association.



## Vollagen<sup>®</sup> Mode of Action

- Collagen in its native form can't be absorbed by the body and so Marine Collagen is popular because it is hydrolysed to free the amino acids.
- This is the exact aim of Vollagen<sup>®</sup>; to deliver the complex of Collagen Amino Acids for the body to utilise and to stimulate the body's creation of further Collagen. Just without the animal-origin or hydrolysis.



# Vollagen<sup>®</sup> Types of Collagen

- There are many (28) types of Collagen, differentiated by where in the body they are formed and utilised, but the building blocks are the same.
- While we see some technologies attempting to directly mimic individual Collagen Types, it is largely irrelevant because upon ingestion the body takes the building blocks and uses them as it sees fit.
- Vollagen<sup>®</sup> provides the building blocks for all Human Collagen.



## Vollagen<sup>®</sup> Consumer Efficacy Study: Introduction

- Laboratory data and theoretical data are all very well, but we wanted to try Vollagen<sup>®</sup> on people to observe results in real world settings.
- We worked with Ayton Global Research (AGR), a leading and award-winning independent global consumer testing organisation. AGR has over 600K volunteers worldwide and works under strict quality systems and protocols to deliver impartial efficacy studies that meet Advertising Standards requirements.
- We performed a study over a 60-day period using 1000mg of Vollagen (2 x capsules) per day. Study subjects were given unbranded sachets with dose and usage instructions.



### Vollagen<sup>®</sup> Consumer Efficacy Study: Study Criteria

- 55 female participants aged 30-60.
- Questions, set by AGR to meet internal standards, were scored 1-8 (Strongly Disagree to Strongly Agree). Only mean scores of 66% and above were accepted as 'pass' claims.
- Subjects were given the option of providing comments about the product and their personal experiences.



# Vollagen<sup>®</sup> Summary of Results

After 60 days of use:

- $\checkmark$  Firmer, more hydrated skin.
- $\checkmark$  Fine lines and wrinkles reduced.
- $\checkmark$  Skin tone is more even and radiance enhanced.
- $\checkmark$  Appearance of dark circles reduced and eyes look less tired.
- $\checkmark$  Supple, smoother skin.

- $\checkmark\,$  Breakouts and blemishes reduced.
- ✓ Skin appears healthier and complexion looks brighter.
- $\checkmark$  Nails feel stronger, look healthier, and condition improved.
- ✓ "I look and feel more youthful."



# Vollagen<sup>®</sup> Results in detail: The product itself

General feedback on the product:

- $\checkmark$  Good appearance.
- $\checkmark\,$  Easy to swallow.
- $\checkmark$  Happy to take the supplement regularly.
- $\checkmark$  I would buy this product.
- $\checkmark\,$  I would recommend this product.

"This is an easy way to take a Collagen supplement."

"Easy to swallow capsules with no smell or taste."

"I am amazed at the effects of this product and don't ever want to be without it."



### **Vollagen<sup>®</sup>** Results in detail: Hydration, Firmness, Suppleness

After 60 days of use, subjects reported that with regular use:

- $\checkmark$  Skin feels more hydrated.
- $\checkmark\,$  Skin feels softer.
- $\checkmark$  Skin feels smoother.
- $\checkmark$  Skin feels more supple.
- $\checkmark$  Skin feels firmer.

"Brilliant supplement for dry skin."

"Makes all over body dry skin disappear within a week."

"My skin feels smoother and more supple."

"My skin feels plumper and hydrated."





After



# Vollagen<sup>®</sup> Results in detail: Radiance and tone

After 60 days of use, subjects reported that with regular use:

- $\checkmark$  Skin feels more radiant.
- $\checkmark$  Skin tone looks more even.
- $\checkmark$  Skin looks healthier.
- ✓ Complexion looks brighter.



"My skin is more radiant."

"My complexion appeared more even."

"My skin tone and moisture levels are more balanced."

"My skin felt more fresh faced and I noticed I was wearing less and less makeup during the study."



### Vollagen<sup>®</sup> Results in detail: Fine lines, wrinkles, dark circles

After 60 days of use, subjects reported that with regular use:

- $\checkmark$  Fine lines and wrinkles appear reduced.
- ✓ The appearance of dark circles under the eyes is reduced.
- $\checkmark$  Eyes look less tired.



"I have definitely noticed wrinkles on my forehead and around my eyes reduced. Extremely happy with the results."

"I saw a reduction in fine lines and wrinkles."

"Really impressed. I had some wrinkles on my forehead and they have dramatically reduced.

"Dark circles under my eyes are reduced."



# Vollagen<sup>®</sup> Results in detail: Breakouts and blemishes

After 60 days of use, subjects reported that with regular use:

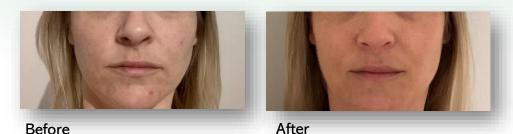
- ✓ The appearance of breakouts and blemishes is reduced.
- ✓ Noticed less breakouts.

"Bad skin and blemishes have become a thing of the past."

"I have noticed a significant reduction in blemishes and breakouts on my face."

"My face feels smooth with a little less red patches."







### Vollagen<sup>®</sup> Results in detail: Nails

After 60 days of use, subjects reported that with regular use:

- $\checkmark$  Nails feel stronger.
- $\checkmark$  Nails look healthier.
- The supplement has improved the overall condition of my nails.

"My nails are stronger and less brittle."

"My nails are the strongest they've been in years."

"Improved the condition of my nails, which had previously been weak and brittle and peeled at the sides."

"Hair, skin and nails all feel much healthier thanks to this product."

# Vollagen® VGN3 Vollagen® Powder

#### Specification

ltem	Limits	Method
Appearance	White to off-white fine powder	Visual
Assay	<u>&gt;</u> 95%	HPLC
Bulk Density (g/ml)	0.4 – 0.8	USP 616
Particle Size (%)	<u>≥</u> 95.0	USP 786
through sieve No.40		
Loss on drying (%)	<u>&lt;</u> 1.0	USP 731
Residue on ignition (%)	<u>&lt;</u> 0.4	USP 281
Heavy Metals (ppm)	<u>&lt;</u> 10.0	USP 231
Arsenic (ppm)	<u>&lt;</u> 1.0	EN ISO 17294
Total Plate Count (CFU/g)	<u>&lt;</u> 1000	ISO 4833
Yeasts and molds (CFU/g)	<u>&lt;</u> 100	ISO 21527
Coliform (CFU/g)	<u>&lt;</u> 10	ISO 4832
E. Coli	Negative / g	ISO 16649
Salmonella	Negative / 25g	ISO 6579
Staphylococcus Aureus	Negative / 25g	ISO 6888

#### Amino Acid composition (~99%)

ltem	Limits	Method	
L-Alanine (%)	6.5 – 11.6	HPLC	
		-	
L-Arginine HCl (%)	6.3 – 11.4	HPLC	
L-Aspartic Acid (%)	3.0 - 8.1	HPLC	
L-Glutamic Acid (%)	6.9 – 12.0	HPLC	
Glycine (%)	18.9 – 24.0	HPLC	
L-Histidine (%)	0.1 – 2.3	HPLC	
L-Isoleucine (%)	0.1 - 3.1	HPLC	
L-Leucine (%)	1.4 – 4.5	HPLC	
L-Lysine HCl (%)	3.0-6.1	HPLC	
L-Methionine (%)	0.1 – 2.2	HPLC	
L-Proline (%)	10.2 – 15.3	HPLC	
L-Serine (%)	1.8 – 4.9	HPLC	
L-Threonine (%)	0.4 – 3.5	HPLC	
L-Tyrosine (%)	0.1 – 2.3	HPLC	
L-Valine (%)	0.9 - 4.0	HPLC	
L-Phenylalanine (%)	0.5 – 3.6	HPLC	
Hydroxyproline (%)	9.2 – 14.2	HPLC	



#### Composition for ingredient listing

Glycine, Proline, Hydroxyproline, Glutamic acid, Alanine, Arginine, Aspartic acid, Lysine, Serine, Leucine, Valine, Phenylalanine, Threonine, Isoleucine, Histidine, Tyrosine, Methionine, Hydroxylysine, Sunflower Lecithin.

#### Packaging

25kg bags in carboard cartons

#### **Regulatory position**

No known regulatory limitation of use. Vollagen® can be considered as a combination of the established, listed Amino Acids and inline with global regulatory positions for each individual compound. The composition includes 0.5-1% Sunflower Lecithin.

#### Shelf-life

24 months.



### Vollagen<sup>®</sup> Trademark use

- The Vollagen Trademark is available for use under a simple Trademark agreement, which follows approval of the use of the mark (wording or logo) by the brand, e.g.:
- Made with Vollagen<sup>®</sup>
- Contains Vollagen $^{\mathbb{R}}$
- Contains Vollagen®







www.vollagen.com