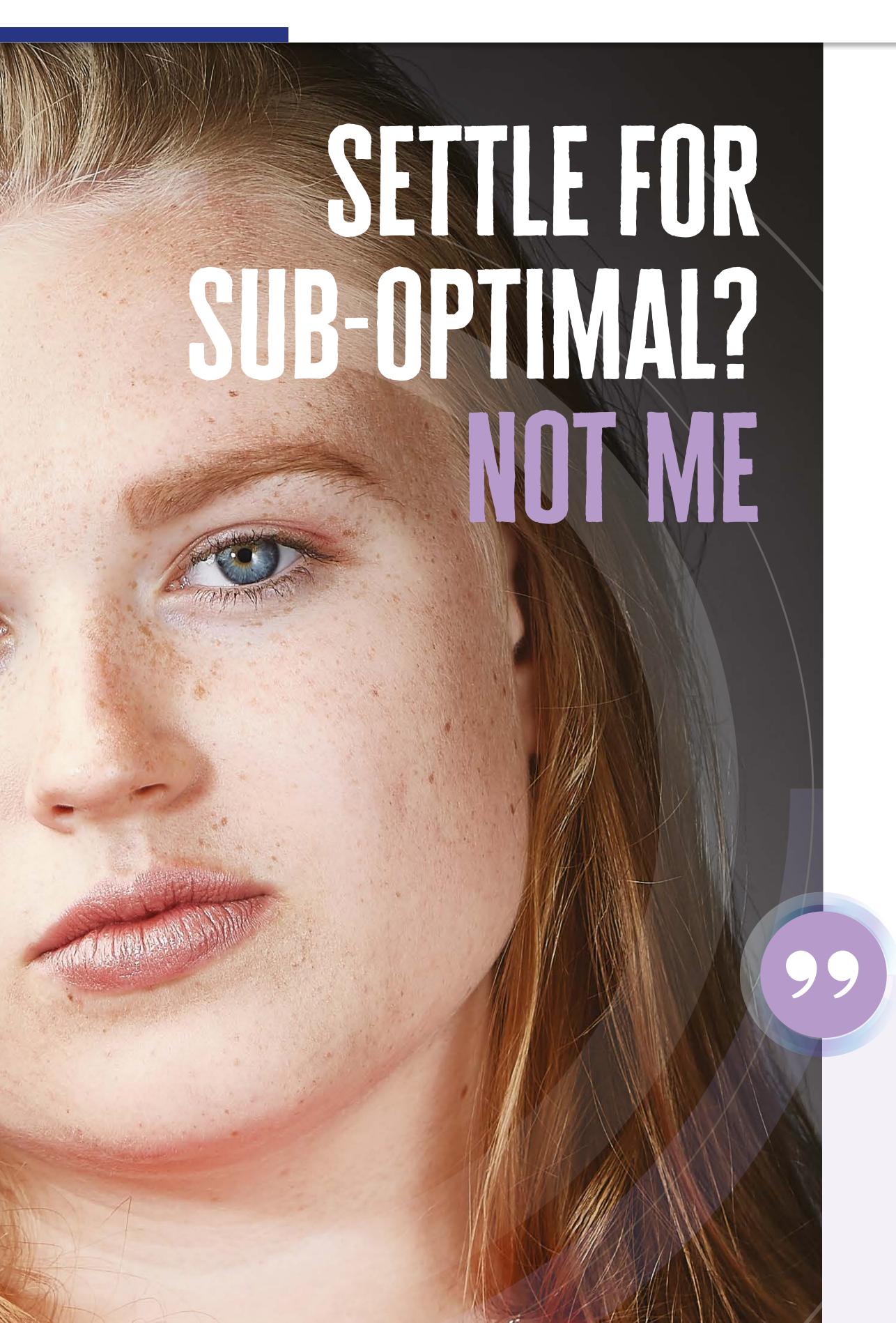
The PKU GMPro Range are Foods for Special Medical Purposes for the dietary management of proven phenylketonuria (PKU) and must be used under medical supervision. Suitable from 3 years of age. Accurate at time of publication September 2019. This information is intended for Healthcare Professionals only. 

# NOT MY TASTE NOT MY TIME







## COMPLIANCE IS SUB-OPTIMAL IN MANY PKU PATIENTS<sup>1</sup>

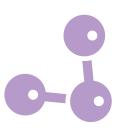
When something doesn't taste good, you're less likely to consume it again.



The central management regimen for PKU patients revolves around taking protein substitutes several times a day.<sup>2</sup>



Yet, the taste and flavours of many protein substitutes is sub-optimal and PKU patients commonly report symptoms of poor digestive health after their consumption.<sup>3</sup>



As a consequence of the sub-optimal taste of PKU protein substitutes, compliance to them is commonly sub-optimal too.<sup>1,4</sup>

"The consumption of a food or drink is linked to sensory experience. Those experiences that are deemed pleasurable are most likely to be pursued, and those with negative associations avoided".

- Ozcagli et al, 2013<sup>5</sup>

REFS



#### PKU PATIENTS DESERVE BETTER TASTING PRODUCTS

For PKU patients, consuming protein substitutes makes up a large part of their management regimen and daily routine.

Studies with oral nutritional supplements have shown that taste and oral sensation are important considerations for improving compliance.<sup>5</sup>

#### PKU PATIENTS DESERVE BETTER.



More satisfying products that are even better tasting. Products designed not only with nutritional benefits in mind, but developed specifically for their good taste and oral sensation, to facilitate better compliance.

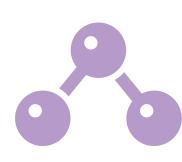


#### PKU GMPro DEVELOPED TO BE DELICIOUS

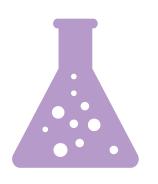
The PKU GMPro Range was developed specifically for **good** taste & oral sensation, to facilitate compliance.



The best tasting\* & most preferred† GMP-based protein substitutes in the UK, which can aid in compliance<sup>5</sup>



PKU GMPro products help patients gain **essential nutrition** their diets may typically lack, including essential **marine-derived omega-3s** & **soluble fibre**^^,6,7



Designed to tackle **frequently reported compliance barriers** (self-consciousness, taste, convenience)<sup>4</sup>



Patients can feel more satisfied & fuller for longer, compared to typical AA-based protein substitutes<sup>8</sup>

\*compared to other vanilla or original (neutral, sweetened) flavoured GMP-based protein substitutes on the UK market (PKU patient event (n=40), Data on file 2019)<sup>9</sup>

†compared to Cambrookes RTD Glytactin in a blind taste-test against, the only other liquid-based formula available within the UK (PKU patient event (n=19), Data on file  $2019)^{10}$ 

^^soluble fibre is only found in PKU GMPro powder





## PKU GMPro Tastes Great, which can aid in compliance

PKU GMPro is a new GMP-based protein range, derived from a natural, whole protein source. PKU GMPro tastes better\* & is preferred over† current GMP-based PKU protein substitutes in the UK market.

Glycomacropeptide (GMP)-based protein substitutes are known for their mild taste and palatability,<sup>11,12</sup> a key factor in patient compliance.<sup>1,5</sup> PKU GMPro products have a mild, vanilla flavour, with a smooth, creamy texture for easy drinking.<sup>13</sup>

"No after-taste or repeating, no smelly breath, it's amazing!"

- PKU GMPro Case Study<sup>14</sup>



PKU GMPro; provide your patients with a protein substitute they can look forward to taking.

\*compared to other vanilla or original (neutral, sweetened) flavoured GMP-based protein substitutes on the UK market (PKU patient event (n=40), Data on file 2019)<sup>9</sup>

†compared to Cambrookes RTD Glytactin in a blind taste-test, the only other liquid-based formula available within the UK (PKU patient event n=19, data on file, 2019).¹¹0



# PKU GMPro LQ: A NEW PKU PROTEIN SUBSTITUTE THAT IS READY-TO-DRINK, AT HOME OR ON-THE-GO

Taking protein substitutes several times a day needn't be a chore for PKU patients.

#### Tasty, nutritious and easy?

- Single-serving drinks to take anywhere
- No kitchen? No problem just rip, tip and drink
- Busy day? Drink-and-go formula puts convenience first

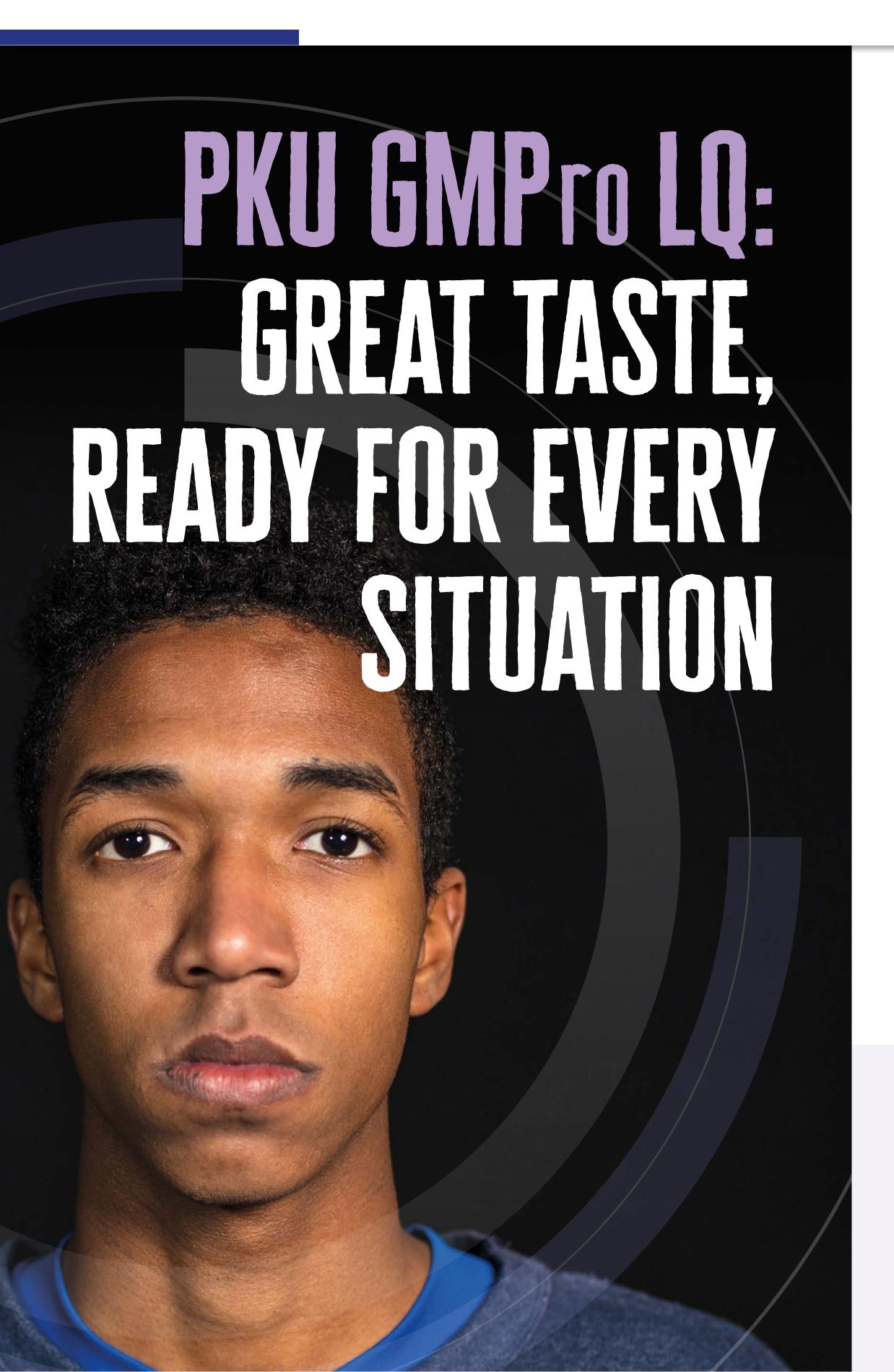
#### Big on taste, focused on PKU nutrition

- Vitamin and mineral formulation to support busy lifestyles
- Supplemented with essential dietary DHA and EPA marine-derived omega-3s often lacking in a typical PKU diet<sup>6</sup>

90% of PKU patients preferred PKU GMPro LQ in a head-to-head test against the only other liquid GMP-based competitor in the UK\*

\*based on 19 participants in a blind taste-test against Cambrookes RTD Glytactin, the only other liquid-based formula available within the UK (PKU patient event, data on file 2019).<sup>10</sup>





## PKU GMPro Helps pku patients tackle their compliance burden

#### Tastes great

• PKU GMPro LQ is the most preferred liquid GMP-based protein substitute, 10 which can aid in compliance 4

#### Convenient

• Drink-and-go formulas are proven to remove compliance barriers in PKU patients<sup>4</sup>

#### Liquid PKU protein substitutes are proven to:\*

- Reduce self-consciousness<sup>4</sup>
- Offer sustained and efficacious improvements in compliance<sup>4,11</sup>

PKU GMPro LQ also contains essential omega-3 fatty acids DHA and EPA, often lacking in typical PKU diets<sup>6</sup>







# THE PKU GMPTO RANGE WAS DESIGNED FOR PKU PATIENTS, WITH PKU PATIENTS

Designed to have a great taste and texture, PKU GMPro can make compliance easier and more enjoyable.<sup>4,5</sup>

#### PKU GMPro; the best tasting GMP-based protein substitute\*

40 PKU patients compared the taste of PKU GMPro against other vanilla or original (neutral, sweetened) flavoured GMP-based protein substitutes and rated PKU GMPro the best tasting.<sup>9</sup>

#### PKU GMPro LQ; the patient preferred GMP-based liquid protein substitute<sup>†</sup>

19 PKU patients compared the taste of PKU GMPro LQ against other vanilla or original (neutral, sweetened) flavoured GMP-based liquid protein substitutes and rated PKU GMPro LQ the most preferred.<sup>10</sup>

<sup>\*</sup>compared to other vanilla or original (neutral, sweetened) flavoured GMP-based protein substitutes on the UK market (PKU patient event n=40, data on file, 2019).9

<sup>†</sup>compared to Cambrookes RTD Glytactin in a blind taste-test, the only other liquid-based formula available within the UK (PKU patient event n=19, data on file, 2019).<sup>10</sup>



## MY DIET FITS MY LIFESTYLE



#### PKU GMPro IS CONVENIENT

Taking time to make a protein substitute powder drink several times daily, every day, is a commitment.

- Drink-and-go formula of PKU GMPro LQ means that patient compliance is not restricted by their availability for powder prep
- PKU GMPro LQ is easy to take in any situation, helping patients when convenience is the key to compliance<sup>1</sup>
- PKU GMPro Powder is discreet and accommodates different tastes and preferences, for added variety & discretion
- Patients can mix and match PKU GMPro products to fit their lifestyle

Liquid PKU protein substitutes are proven to improve compliance & reduce self-consciousness in PKU teens and adults,\*4 helping patients at every stage of their PKU journey



PATIENTS

#### PKU GMPro IS SATISFYING

PKU patients want more from their protein substitutes – more natural, satisfying, and tasty.

Patients with PKU often anecdotally report feeling hungry. GMP-based protein substitutes like PKU GMPro may help patients feel fuller for longer<sup>11,15</sup> compared to traditional amino acid-based protein substitutes.

As well as a GMP base, PKU GMPro has a higher energy content to help patients feel even more satisfied and less hungry between meals.

PKU patients feel significantly more full and tended to feel less hungry, while taking PKU GMPro as a full or part replacement for their usual amino-acid based protein substitutes.<sup>8</sup>

"She reported reduced feelings of hunger, which she said resulted in less sugar cravings and snacking".

- PKU GMPro Case Study<sup>9</sup>

# PACKED WITH NUTRICAL NUTRICAL NEED



#### BIG ON TASTE, FOCUSED ON PKU NUTRITION

Typical PKU diets can often lack certain essential nutrients like omega-3 fatty acids and soluble fibre.<sup>6,7</sup>

To combat this, all PKU GMPro products provide a source of **Docosahexaenoic Acid (DHA)** - fundamental for the formation and function of the nervous system, particularly the brain and retina.<sup>16</sup>



PKU GMPro LQ contains additional essential provides a **Eicosapentaenoic acid (EPA)** another omega-3 fatty acid, to help PKU patients achieve their daily nutritional needs<sup>6</sup>



We've supplemented PKU GMPro powder with soluble fibre, to help support digestive health<sup>7</sup>



Patients can mix and match PKU GMPro products to give variety, prevent taste fatigue, and help support compliance



PATIENTS

## PKU GMPro has a lot to offer patients of every diet and lifestyle

A second-to-none portfolio of supporting materials and services is offered alongside PKU GMPro, to help your patients along their PKU journey.



#### Homeward

Your home delivery service.



#### Loprofin foods

A range of low protein foods to suit your needs.



#### Low Pro Mobile app

Track your diet and more from your phone.



#### lowproteinconnect.com

Online resource for all things PKU.



# MIX & MATCH MEANS MORE VARIETY

Your patients can mix and match PKU GMPro with other protein substitutes in the Nutricia Metabolics range, to give variety, prevent taste fatigue, and help support compliance further.

#### All products mentioned here are Foods for Special Medical Purposes for the dietary management of proven phenylketonuria

(PKU) and must be used under medical supervision

## PKU GMPro CAN BE USED WITH OTHER NUTRICIA METABOLICS PROTEIN SUBSTITUTES





#### LOPHLEX LQ

Juicy Berries, Juicy Orange, Juicy Tropical, Juicy Citrus

Available in 10g PE and 20g PE pouches



# MIX & MATCH MEANS MORE VARIETY

Your patients can mix and match PKU GMPro with other protein substitutes in the Nutricia Metabolics range, to give variety, prevent taste fatigue, and help support compliance further.

## PKU GMPro CAN BE USED WITH OTHER NUTRICIA METABOLICS PROTEIN SUBSTITUTES





#### LOPHLEX POWDER



Unflavoured, Orange, Berry Available in 20g PE sachets

All products mentioned here are Foods for Special Medical Purposes for the dietary management of proven phenylketonuria (PKU) and must be used under medical supervision



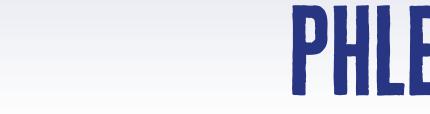
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## PKU GMPro CAN BE USED WITH OTHER NUTRICIA METABOLICS PROTEIN SUBSTITUTES





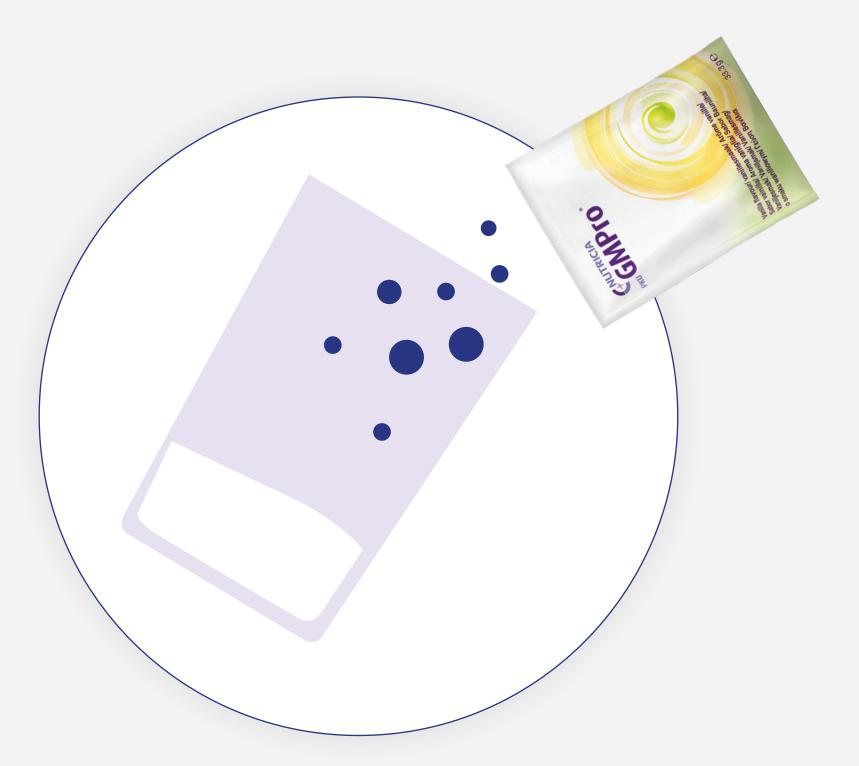




12 tablets provides 10g PE (1 tub contains 75 tablets ~ 60g PE)



#### MAKE IT SHAKE IT TAKE IT



Add approx. 80ml of water into a shaker. Pour in a PKU GMPro sachet.

(your patient can make it to their preferred volume)

#### Try a sample pack for yourself

A PKU GMPro sample pack includes: 1 x Shaker | 8 x 33.3g sachets | Information leaflet

Product can be provided to patients upon the request of a HCP. They are intended for the purpose of professional evaluation only.







#### MAKE IT SHAKE IT TAKE IT



#### Shake it well, until the powder has dissolved completely

You can add two sachets at once to approx. 160ml water, to make a 20g PE version.

#### Try a sample pack for yourself

A PKU GMPro sample pack includes: 1 x Shaker | 8 x 33.3g sachets | Information leaflet

Product can be provided to patients upon the request of a HCP. They are intended for the purpose of professional evaluation only.





#### MAKE IT SHAKE IT TAKE IT



#### **Drink immediately**

Making it in a shaker means it looks and smells like any other non-PKU protein shake.

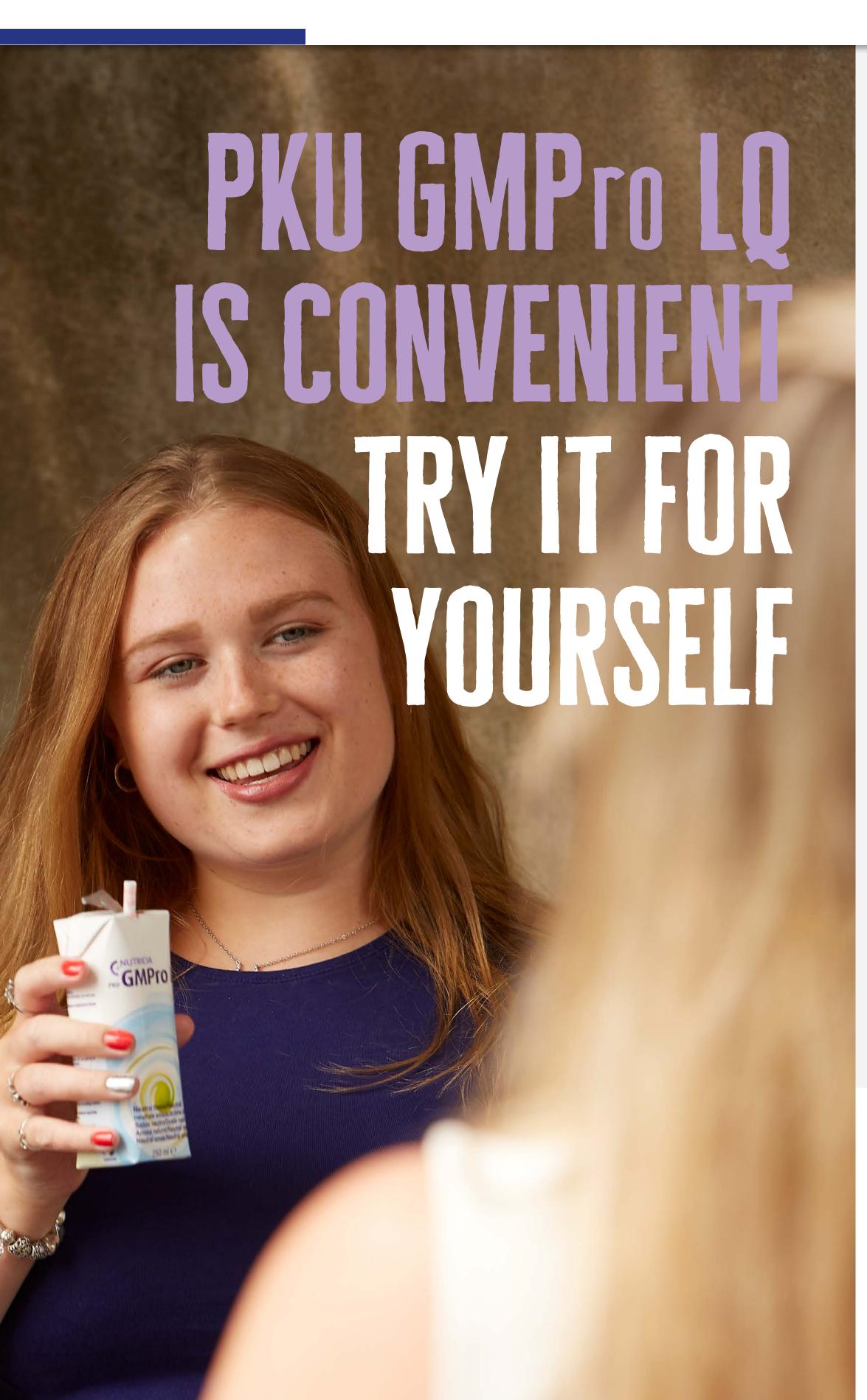
#### Try a sample pack for yourself

A PKU GMPro sample pack includes: 1 x Shaker | 8 x 33.3g sachets | Information leaflet

Product can be provided to patients upon the request of a HCP. They are intended for the purpose of professional evaluation only.



HOME





#### RIP IT. TIP IT. DRINK IT.

Drink-and-go formula puts patient convenience first.

Try Nutricia's latest PKU GMP-based liquid protein substitute for yourself



Product can be provided to patients upon the request of a HCP. They are intended for the purpose of professional evaluation only.



# THE BEST TASTING\* & MOST PREFERRED<sup>†</sup> PKII GMP-BASED

PATIENTS

Mix and match PKU GMPro products to get taste, nutrition, flexibility and convenience

\*PKU GMPro powder; compared to other vanilla or original (neutral, sweetened) flavoured GMP-based protein substitutes on the UK market (PKU patient event; n=40. Data on file, 2019)<sup>9</sup>

<sup>†</sup>PKU GMPro Liquid; compared to the only other ready to drink PKU GMP-based liquid available on the UK market (PKU patient event; n=19. Data on file, 2019)<sup>10</sup>

\*\*Versus. powder-based alternatives



#### PKU GMPro (POWDER)

- Discreet made up in a standard shaker
- Made up to any volume, to suit every taste
- A source of DHA (an omega-3 fatty acid) & soluble fibre, nutrients often lacking in PKU diets<sup>6,7</sup>
- Small sachet size easy to pack & take away



#### PKU GMPro LQ

- Drink-and-go formulas are discreet,\*\* avoiding unwanted attention if your patients are self-conscious<sup>4</sup>
- A source of EPA & DHA
   (essential omega-3 fatty acids), important fats typically lacking in the PKU diet<sup>6</sup>
- Easy on the go, ready for any situation
- Single-serving carton easy to drink

# PKU GMPro CAN SUPPORT PEOPLE AT ALL STAGES OF THEIR JOURNEY.





# SEE HOW IT CAN SUPPORT YOUR PATIENTS.

DATA



#### PKU GMPro OFFERS SUPPORTING SERVICES TO IMPROVE EVERY PATIENT LIFESTYLE

In PKU, dietary compliance is complex. Your patients are individual, and they will all approach their diets differently.

We know that being on diet is better, but not all patients can manage it, all the time.

Factors influencing compliance include the nature, nurture, lifestyle and attitudes of a patient, as well as the inconvenience of dietary management.

Compliance is also highly dynamic, with patients changing between states of compliance, partial compliance, and non-compliance.

PKU GMPro can support PKU patients at all stages of their journey.



### TONIS TOTALLY COMMITTED

#### COMPLIANT

"I stick to my diet religiously because it makes me feel better and it's a habit. I'm focused on looking after my health and keeping active."



#### PKU GMPro OFFERS SUPPORTING SERVICES TO IMPROVE EVERY PATIENT LIFESTYLE

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PKU GMPro can support PKU patients at all stages of their journey.



# SOPHIE IS COMMITTED BUT STRUGGLING

#### PARTIALLY COMPLIANT

"I really want to get my diet sorted, but sometimes it's hard. I forget to take my protein substitute with me when I'm in a rush, and it's easy to put off drinking them."

DATA



#### PKU GMPro OFFERS SUPPORTING SERVICES TO IMPROVE EVERY PATIENT LIFESTYLE

In PKU, dietary compliance is complex. Your patients are individual, and they will all approach their diets differently.

We know that being on diet is better, but not all patients can manage it, all the time.

Factors influencing compliance include the nature, nurture, lifestyle and attitudes of a patient, as well as the inconvenience of dietary management.

Compliance is also highly dynamic, with patients changing between states of compliance, partial compliance, and non-compliance.

PKU GMPro can support PKU patients at all stages of their journey.



# SAN THINKS IT'S IMPOSSIBLE

#### NOT-COMPLIANT

"I just want to enjoy life, not worry about taking protein substitutes all the time. I don't like thinking about what I can and can't eat when I'm out with family and friends."





# KEYNUTRITIONAL INFORMATION



Average contents		per 100g	per serving
Energy	kcal	45	112
	kJ	188	470
Protein Equivalent:	g	4	10
L-phenylalanine	mg	7.2	18
Carbohydrate:	g	3.4	8.5
Sugars	g	3	7.5
Fat:	g	1.6	4
Saturates	g	0.16	0.4
Monosaturates	g	0.95	2.38
Polyunsaturates	g	0.49	1.23
Docosahexaeonic acid	mg	24	60
Elcosapentaenoic acid	mg	6	15
Dietry Fibre	g	0.37	0.93
Minerals			
Calcium	mg (mmol)	144 (3.6)	360 (9)
Iron	mg	1.4	3.5
Zinc	mg	0.96	2.4
Selenium	hã	5.5	13.8
Vitamins:			
Vitamin A	mg	80	200
Vitamin D <sub>3</sub>	hã	2.5	6.3
Vitamin E	mg (a-TE)	1.3	3.3
Vitamin K <sub>1</sub>	hã	7	17.5
Thiamin	mg	0.16	0.4
Riboflavin	mg	0.16	0.4
Niacin	mg (mg NE)	1.4 (3)	1.4 (3)
Pantothenic acid	mg	0.52	1.3
Vitamin B <sub>6</sub>	mg	0.14	0.35
Folic acid	hã	20	50
Vitamin B <sub>12</sub>	hã	0.28	0.7
Biotic	mg	3.1	7.8
Vitamin C	mg	6.2	15.5





#### LQ POWDER

# KEYNUTRITIONAL INFORMATION



Average contents		per 100g	per serving
Energy	kcal	384	128
Protein Equivalent:	g	30	10
L-phenylalanine	mg	54	18
Carbohydrate:	g	37.5	12.5
Sugars	g	26	8.7
Fat:	g	11.7	3.9
Saturates	g	2.8	0.93
Monosaturates	g	6.4	2.1
Polyunsaturates	g	2.5	0.83
Docosahexaeonic acid	mg	155	51.6
Dietry Fibre	g	4.5	1.5
Minerals			
Calcium	mg (mmol)	1155 (28.8)	385 (9.6)
Iron	mg	14.5	4.8
Zinc	mg	11.2	3.7
Selenium	рg	52.8	17.6
Vitamins:			
Vitamin D <sub>3</sub>	рg	22.5	7.5
Vitamin E	mg (a-TE)	15.3	5.1
Vitamin K <sub>1</sub>	рg	72	24
Thiamin	mg	1.8	0.6
Riboflavin	mg	1.8	0.6
Niacin	mg (mg NE)	15.0 (26.9)	5.0 (9.0)
Pantothenic acid	mg	4.8	1.6
Vitamin B <sub>6</sub>	mg	1.7	0.57
Folic acid	рg	360	120
Vitamin B <sub>12</sub>	рg	3.6	1.2
Vitamin C	mg	72	24





#### REFERENCES

- 1. MacDonald A, Van Rijn M, Gokmen-Ozel H, et al. J. Inherit Metab Dis. 2010;33:665–670.
- 2. MacDonald A, Daly A, Dabies P, et al. J Inherit Metab Dis. 2004;27:363-371
- **3.** Ney DM, Stroup BM, Clayton MK, et al. Am J Clin Nutr. 2016;104(2):334–345.
- 4. MacDonald A, Lilburn M, Davies P, et al. J Inherit Metab Dis. 2006;29:526-531.
- 5. Ozcagli TG, Stelling J, Stanford J. *Turk J Gastroenterol.* 2013;24:266–272.
- 6. Montoya Parra GA, Singh RH, Cetinyurek-Yavuz A, et al. Orphanet J Rare Dis. 2018;13:101.
- 7. Wiig I, Motzfeldt K, Bjørge Løken E, et al. JIMD Rep. 2013;7:109-116.
- 8. Nutricia. PKU GMPro ACBS study (Data on file).
- 9. PKU patient event (n=40) Data on file 2019.
- 10. PKU patient event (n=19) Data on file 2019.
- 11. Zaki OK, El-Wakeel L, Ebeid Y, et al. J Nutr Metab. 2016;2453027.
- 12. Pena MJ, Pinto A, Daly A, et al. Nutrients. 2018;18;10(11).
- 13. Nutricia. PKU GMPro Data Sheet.
- 14. Nutricia. PKU GMPro Case Study 231 (Data on File).
- 15. Macleod EL, Clayton MK, van Calcar SC, et al. Mol Genet Metab. 2010;100(4):303–8.
- **16.** Echeverría F, Valenzuela R, Catalina Hernandez-Rodas M, et al. Prostaglandins Leukot Essent Fatty Acids. 2017;124:1–10.





# TOMIS COMMITTED TO HIS PKU DIET

Tom finds sticking to his PKU diet relatively easy. He's interested in health trends, like maintaining good digestive health, and consuming nutritional products that contain more natural ingredients. He's motivated to stay healthy, get on with life, and not let his PKU get in his way.



#### PKU GMPro Offers Supporting Services To improve every patient lifestyle

#### Healthy lifestyle

PKU GMPro offers a more natural source of protein than standard AA-based protein substitutes.

- PKU GMPro LQ is the only GMP-based PKU liquid formulation supplemented with essential dietary DHA & EPA omega-3 fatty acids often lacking in typical PKU diets<sup>6</sup>
- PKU GMPro Powder is the only powdered GMP-based PKU protein substitute which contain both DHA & soluble fibre, which can improve digestive health in PKU patients.<sup>7</sup>

#### Fuller for longer

PKU GMPro can help patients feel **fuller for longer**<sup>5,10</sup> compared to AA-based substitutes, helping patients to snack less and maintain healthy eating habits.

#### Online support

PKU GMPro users can find new recipes and tips to stay healthy with our recipe books and community website www.lowproteinconnect.com

Tom can mix and match PKU GMPro products to take the health benefits that suits his needs best.



# SOPHIE IS COMMITTED BUT STRUGGLING

PATIENTS

Sophie understands the importance of her PKU diet, but struggles with full compliance, finding it a bit of a chore. Her diet is not quite ingrained, meaning she must set reminders and plan ahead of time. Sophie wants to achieve full compliance, she's doing it to feel good and stay healthy, she just wants it to be easier.



## PKU GMPro Offers Supporting Services to improve every patient lifestyle

#### Aids compliance

PKU GMPro tastes good, which can make it easier & more enjoyable for your patients that struggle to maintain full compliance, vs traditional AA substitutes.<sup>12</sup>

- PKU GMPro LQ is **quick** & **easy on the go**; liquid protein substitutes are proven to improve compliance vs powder alternatives<sup>4</sup>
- PKU GMPro Powder is **lightweight** & **versatile** several sachets can be discreetly packed into a bag and made to any volume, to suit individual preferences

#### Online support

PKU GMPro users can also access a lot of support content online

- they can find **easy recipes** in patient recipe booklets, ways to **track their diet** on the Low Pro mobile app and more info at **www.lowproteinconnect.com** 

Patients can also benefit from Nutricia Metabolics' home delivery service, **Homeward**, reducing time and hassle collecting prescriptions

Patients, like Sophie, can mix and match PKU GMPro products to suit their lifestyle.



# SAM THINKS ITS IMPOSSIBLE

Some PKU patients find maintaining compliance impossible. Life gets in the way, they relax their restrictions, and do it all a bit 'ad hoc'. They probably know they should be on diet, and may consider it if there was a way to make it easier or tastier.



#### PKU GMPro Offers Supporting Services To improve every patient lifestyle

#### Aids compliance

PKU GMPro tastes good<sup>9</sup>, which can aid compliance.<sup>5</sup>

- Liquid protein substitutes, like PKU GMPro LQ, are proven to reduce self-consciousness & further improve compliance in PKU patients<sup>4</sup>
- PKU GMPro Powder is easy to make up with a standard shaker, meaning it can be more discreet for concerned patients, like Sam. PKU GMPro Powder is also lightweight & easy to pack for work or holidays

#### Home Delivery

Patients can benefit from Nutricia Metabolics' home delivery service, **Homeward**, reducing time and hassle collecting prescriptions.

#### Online support

PKU GMPro users can also access a lot of support content online to make life easier – easy recipes in patient recipe booklets, ways to track their diet on the Low Pro mobile app, and more community info at www.lowproteinconnect.com

Sam can feel like compliance is possible with PKU GMPro products.