

The background of the cover features a stethoscope resting on a stack of books. The stethoscope is positioned diagonally across the frame, with its chest piece resting on the books. The books are stacked horizontally, and their spines are visible. The overall color palette is warm, with shades of brown, tan, and a hint of teal in the upper left corner.

# THE PRACTITIONER'S DIETARY SUPPLEMENT REFERENCE GUIDE PART V

3<sup>RD</sup> EDITION 2015



# PROTEIN POWDER MIXES



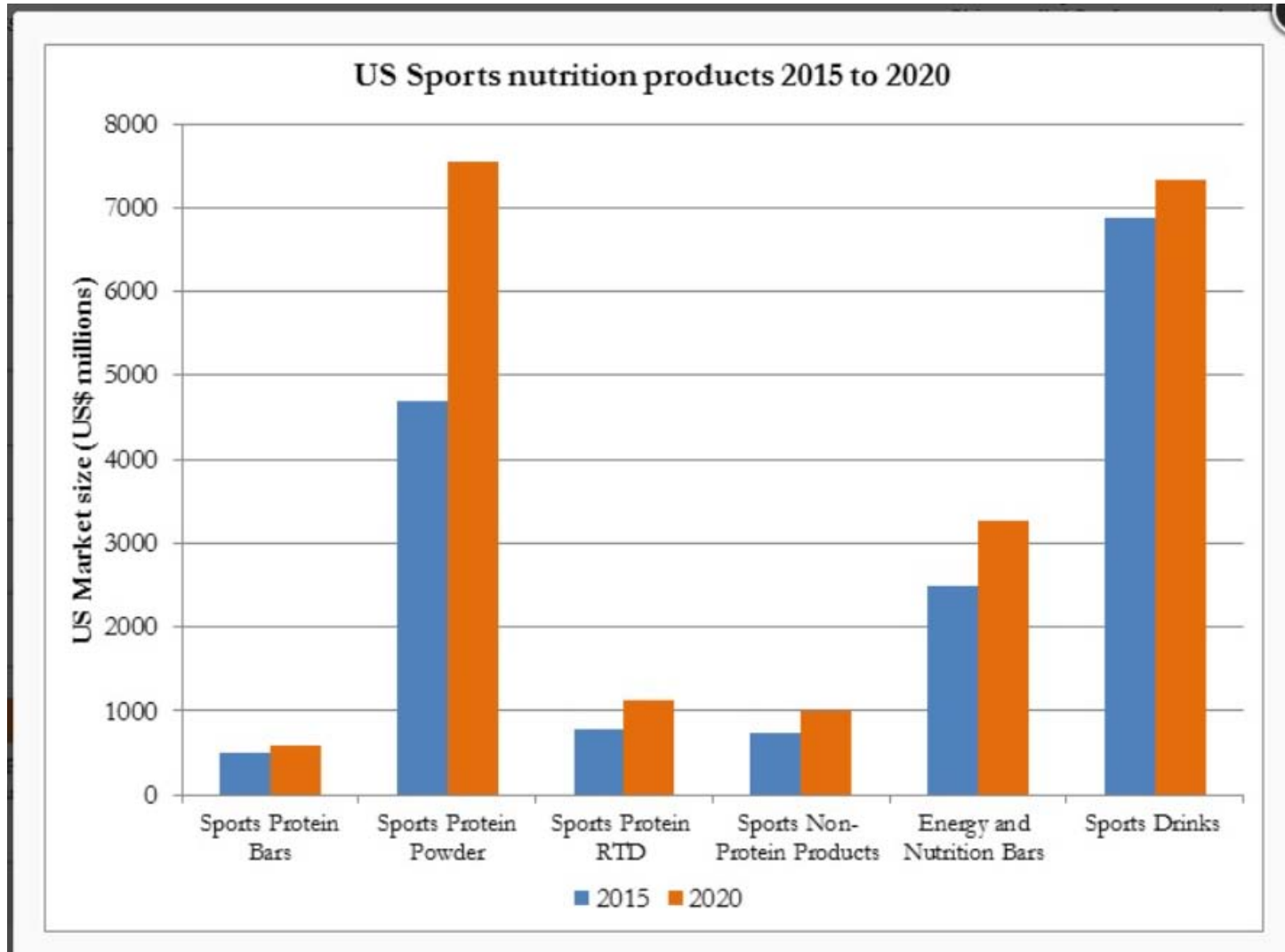
## PDSRG Part V: Protein Powder Mixes Section

- The market opportunity - “the big nutrition bang”
  - ✓ The future of everyone’s nutrition - 21<sup>st</sup> Century science
- Goals and rationale with Q&A after each product (connecting the right product to the right user)
  - ✓ FirstString
  - ✓ WheySmooth
  - ✓ All Natural WheySmooth
  - ✓ Best Plant Protein
  - ✓ LeanMR
  - ✓ Pre & Post Workout & Meal Replacement Formula



**You need to own this market because you can and should based on safety, efficacy and the customers who are *already* in your door  
Seize on the “free advertising” both good and bad**

**Protein powders alone are currently \$4.8B/yr growing to \$7.5B in next 4 years**



**Should become a business inside your business since it's a necessary component for all our customers**

# LEVERAGING MEDIA - THE BAD DEFEATS THE COST ARGUMENT



## Mass Market Brands Caught “Protein Spiking\*”

- And guess what? Their powders also don’t come with a gym, workout or menu planning - or a Fitness Professional
- Whey’s demand *increased* prices from <\$2/kilo to \$12!
- Exposes the truth – thus the bad guys and class action lawsuits flying
- NBTY (distributes over 22,000 mass market products) sued over pumping up protein claims for whey products
  - **Claim:** 24 g protein, 2 g CHO, 1 g fat; **Actual:** 2.4g/pro, 25 g CHO, 1 g fat
- Others such as MusclePharm’s
  - **Protein claim:** 40 g; **Actual 19 g**

\*The practice called “protein-spiking” is when manufacturers add cheaper non-protein ingredients, such as amino acids, to increase the nitrogen content, which then makes it appear as if the product contains more protein than it actually has. Class action suits have been filed against many top brands

<http://www.forbes.com/sites/alexmorrell/2015/03/12/lawsuits-say-protein-powders-lack-protein-ripping-off-athletes/#6b7d0e2d1039>





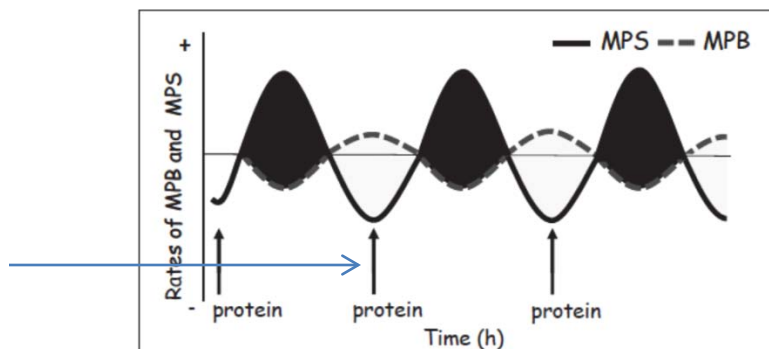
## Sports Nutrition is The New Healthy Ageing Keeping Active & Staying Lean is Our Customer

Goal for everyone: Keep muscle protein synthesis (MPS) ahead of muscle protein breakdown (MPB) as long as possible

### Normal MPS/MPB process:

How muscle mass is maintained in healthy normal fed humans up to ~30yr

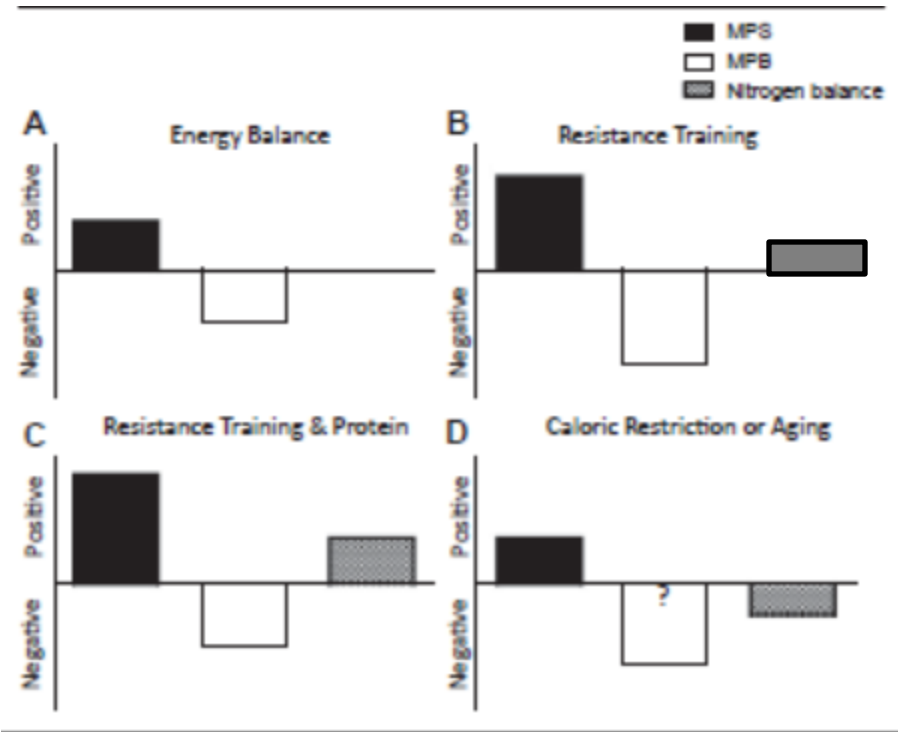
MPS remains Negative until protein ingested



Cost of MPS & MPB (protein turnover):  
1.04Kcal/gm & 1-2% of all protein  
replaced daily

MPS (nitrogen balance) is positive (MPS>MPB) through puberty. Then through normal daily activity & nutrition, mass is maintained (MPS=MPB) up to ~30 yr. Post 30 yr MPB>MPS

# Why Sports Nutrition is the new Healthy Aging



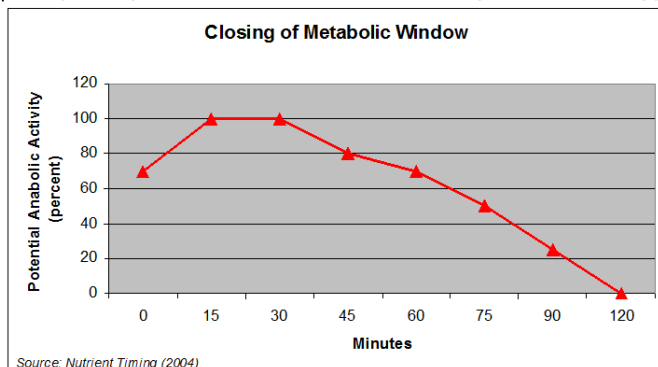
A: From previous slide:  $MPS = MPB$

B: Addition of exercise with normal diet but w/o Pre/Post Exercise protein (see Metabolic window –no make-up)  
 $MPS \geq MPB$  up to a point

C: Addition to normal diet of Pre/Post protein –greater, longer favoring of MPS

D: Caloric restriction and/or ageing in which higher protein **can minimize MPB**

Muscle protein synthesis exercise-induced acute incremental potential immediately post exercise



Exaggerated MPS response when exercise & AA converge i.e. the so-called metabolic window (MW)

## Lifetime Solution

- Protein **1gm/LB LBM** divided 4-5Xs/day
  - If exercising use 25-35 gm (depending on age) fast acting protein 30-40 min before & repeat immediately following

# UPPER LIMIT OF PROTEIN'S ANABOLIC EFFICACY & SAFETY



Size, age, health, energy balance & activity determines protein requirements for maximizing overall MPS throughout all stages of life

## ➤ Maximizing MPS

- ✓ **1 g/LB/BW** daily divided between meals every 3-4 hours including before & after exercise and a final dose before bedtime. Additional protein may be appropriate during prolonged calorie restriction as required by physique competitors, wrestlers or other athletes who must attain a specific weight loss or body fat level.
- ✓ Single dose maximum anabolic response is ~20-30 g/meal (increases with age) or high-quality protein scaled to 0.14 g/LB of body mass – i.e. amino acid “muscle full effect. This does not account for protein intake that spares breakdown

## ➤ Safety

- ✓ No upper limit (UL) for protein has been established. The bottom line is that chronic protein intake 2-4 times the RDA appear safe for healthy individuals as long as protein is not replacing other necessary nutritious foods

# WHY WHEY PROTEIN IS SUPERIOR



Compared to other proteins, whey is superior in delivering MPS, health and weight control outcomes based on its unique functional properties

1. Highest essential amino acids (EAA) content (12.4 g/25 g)\*
2. Highest BCAA (5.6 g/25 g)
3. Highest leucine (3 g/25 g)
4. Faster digestion to timely amplify MPS during anabolic windows
5. Less splanchnic AA extraction so more AA directly available for MPS
6. Whey concentrate (WC) also contains unique bio-active health, immune and growth globulins/factors
  - ✓ Immune and overall health support
7. Superior in all body composition outcomes (see LeanMR PDSRG)
  - ✓ Satiety, LBM preservation, >energy expenditure, etc.

**\*Only EAA deliver protein's MPS mechanism of action with leucine being dominate**



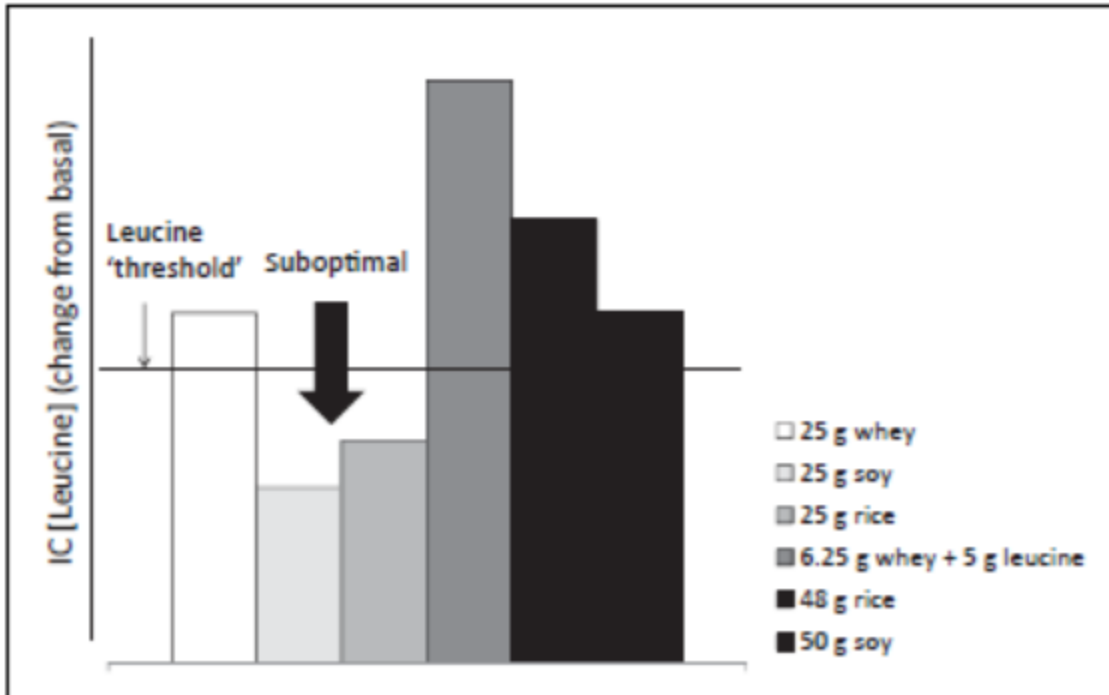


# Leucine Threshold & MPS

**Table 1–Protein quality characteristics of commonly used protein supplements.**

	Whey	Casein	Soy	Hydrolyzed collagen
Complete protein?	Yes	Yes	Yes	No
Digestibility	Fast	Slow	Fast	Fast
Amino acid content (g/25 g protein)				
Leucine	3.0	2.3	1.5	0.8
Σ EAA	12.4	11.0	9.0	3.8
Σ BCAA	5.6	4.9	3.4	1.4
Splanchnic AA extraction	Low	Low	High	High

← 25gm of whey crosses over the so –called **leucine threshold (LT)** where MPS is maximized  
This theoretical amount is >2.5g



- Data is from young resistance trained subjects.**
- Ingestion of 25g of whey causes intra-cellular (IC) leucine to exceed the leucine threshold leading to a more robust MPS (>FSR).
  - Other sources do not reach the LT, blunting the MPS response.
  - The LT increases with age & physical inactivity



# YOUR PROTEIN MIXES 3<sup>RD</sup> PARTY TESTED



# 3rd Party Tested Protein Mixes Summary



## ***FirstString Primary goal: Performance, Size and/or Speed***

Profile of ~60% CHO, 30% protein and 10% fat (2.2:1 CHO:P) is in accordance with current scientific evidence and recommendations that supports maximizing muscle protein synthesis (MPS) & training induced performance Outcomes for the majority of athletes including team sports requiring aerobic and anaerobic activities for 1-3hrs

**2-scoops: 4 g CHO (maltodextrin); 21 g Pro (whey); 3 g Fat (MCT & Plant); 150-200 mg Calcium; 290-295 cal**



## ***WheySmooth (WS) Primary goal: High Protein Low Calorie Protein Source for Any Goal***

Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P) make it an ideal protein source for:

- **Weight/fat conscious exercisers/athletes** to use to maximize MPS including as a pre/post workout formula
- **Meal Replacement/supp for weight control** integrated daily meal plan
- **Ageing** since WS is a convenient & superior protein source for the stimulation of MPS, it could act as a positive influence on the regulation of muscle mass across the lifespan

**1-scoop: 25 g protein (whey); 8 g CHO (maltodextrin); 2.5g Fat (MCT & Plant); 150mg Calcium; 160cal**



## ***All Natural WheySmooth Primary goal: Same as Above to Satisfy Different Customer's Preference***

**Profile of** Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P)

Grass fed, non-GMO, rBGH & gluten free, no preservatives, flavors, colors or sweeteners

**1.5 scoop: 25 g protein (whey); 6 g CHO (fruit extract/flavors); 1.5 g Fat (dairy); 150 mg Calcium; 140cal**



## ***Best Plant Protein Primary goal: Same as WS Above to Satisfy Different Customer's Preference***

**Profile of** Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P) and **100% Vegan/Vegetarian approved**

No-dairy or soy, hypoallergenic, non-GMO& gluten free, no preservatives, flavors, colors or sweeteners

**1-scoop: 21g protein (pea isolate/seed mix); 7g CHO (fruit extract/flavors); 3g Fat (plant); 65mg Calcium; 130cal**

- **All Mixes can be altered as desired by adding other protein, carbohydrate and or dietary fat sources**
- **Mixes may added to other foods/drinks including baking**
- **All Mixes are Gluten Free & 3<sup>rd</sup> Party Tested**

# 3<sup>rd</sup> Party Tested Protein Mixes Summary



## **Primary Goal: Weight Control**

Profile of ~50% CHO, 42% protein and 8% fat (1.1:1 CHO:P), with 7 g fiber is in accordance with current scientific evidence and recommendations that supports maximizing weight control outcomes including satiety, energy expenditure, LBM and maintenance

**2 scoops: 21 g protein (whey isolate); 24 g CHO (sustained); 1.5 g Fat (CLS & Plant); 7 g Fiber; 115mg Calcium; 190cal**

## **Primary Goal: All 4 Protein Mix Supplement goals based on taste or desired native form**

The Profile of ~55% CHO, 31% protein & 14% fat (1.7:1 CHO:P) gives PPMR it's goal diversity

Based on individual preference including taste, calorie & CHO needs, PPMR can be used as:

1. MR in as needed for weight loss and/or maintenance
2. Meal or daily supplement for weight gain
3. Pre/post workout formula to enhance exercise induced results especially within "Metabolic Windows"
4. Daily protein supplement to help meet the current increased protein recommendations to support:
  - ✓ Prolonged MPS, overall health, weight control & slow natural ageing

**2 scoops: 33-35 g CHO (maltodextrin); 21 g Pro (whey); 3 g Fat (MCT & Plant); 150 mg Calcium; 240-250 cal**



## **Primary goal: Maximizing MPS for any User: 1) within the Lowest Calories**

## **2) As an Addition to Muscle Supplement Stacking Program**

•Proper integration can maximize long-term muscle gains through creating & supporting a constant anabolic environment including staying off inevitable age related muscle loss

**1-scoop: 12g EAA, 6000mg BCAA, 4000 mg Leucine**

- All Mixes can be altered as desired by adding other protein, carbohydrate and or dietary fat sources
- Mixes may added to other foods/drinks including baking
- All Mixes are Gluten Free & 3<sup>rd</sup> Party Tested

# STRATEGIC PROTEIN, CARBOHYDRATE (CHO) & CO-FACTORS BLEND OF WS, FS, PPMR



## WheySmooth (WS), FirstString FS) & Pre/Post & Meal Replacement (PPMR) all use :

### Protein blend\*

- An ion-exchange instantized protein blend containing 90% **whey concentrate**, 5% whey isolate (cold filtered) for immediate release in MWs and 5% casein for extended release & easy mixing along with co-factors that give the product its desirable taste, texture and stability with little to no lactose (1.4 g/svg), gas or bloating as is common with other protein powders

### Carbohydrates\*

- **Maltodextrins** for rapid gastric emptying (absorption) for metabolic windows (MW) & pre workout availability; desirable food manufacturing qualities including flavor profile integration

\*Amounts differ based on product's native form (what's in the container) primary goal



# STRATEGIC PROTEIN, CARBOHYDRATE (CHO) & CO-FACTORS BLEND OF WS, FS, PPMR



## WheySmooth (WS), FirstString FS) & Pre/Post & Meal Replacement (PPMR) all use:

### Co-factors including sweeteners (all FDA approved)

- Strategic functional properties for enhancing food products including safety, stability & reduced sugars –all in minute amounts
  - ✓ Acesulfame Potassium (Ace-K): 200Xs sweetness with over 90 safety studies; flavor enhancing while heat stable
  - ✓ Sucralose: 450-650Xs sweetness with >110 safety studies; taste & time intensity profile closest to sugar with exceptional stability – retains freshness profile under all conditions (heat, cooking, storage, solution, etc.)
  - ✓ Carboxymethyl Cellulose: a fiber used as viscosity modifier, emulsifier, ensures flavor dispersion, improves texture and overall quality
  - ✓ Xanthan Gum: natural polysaccharide used as thickener & stabilizer



# 4 GOALS OF PROTEIN MIXES



**Formulations of Protein mixes (protein, carbohydrates & fats) support one or more of the following goals**

1. Meal Replacement as needed for weight loss and/or weight maintenance
2. Meal or daily supplement for weight gain
3. Pre & post workout formula to enhance exercise induced results especially within so called metabolic windows
4. Daily protein supplement to help meet the current increased protein recommendations to support:
  - ✓ Prolonged MPS, overall health, weight control & slow natural ageing



# INDIVIDUAL PRODUCTS GOALS, USER & USAGE





# FIRST STRING – ATHLETES WITH PRIMARY GOAL OF SIZE & PERFORMANCE



Meets NCAA Bylaw 16.5.2.2 for college athletes

~60% CHO, 30% protein and 10% fat (2.2:1 CHO:P)

## Nutrition Facts

Serving Size: 2 Scoops (75g)  
Servings Per Container: About 32

	Calories 290	Fat Cal. 25
Amount Per Serving	% Daily Value	
<b>Total Fat</b>	3g	5%
Saturated Fat	1g	0%
Trans Fat	0g	**
<b>Cholesterol</b>	60mg	20%
<b>Sodium</b>	180mg	8%
<b>Total Carbohydrate</b>	45g	15%
Dietary Fiber	2g	8%
Sugars	3g	**
<b>Protein</b>	21g	42%
Vitamin A (as Beta Carotene)	300 IU	6%
Vitamin C (as Ascorbic acid)	3 mg	5%
Vitamin D (as Cholecalciferol)	20 IU	5%
Vitamin E (as D-Alpha Tocopheryl succinate)	1.5 IU	5%
Thiamin (as thiamine hydrochloride)	0.075 mg	5%
Riboflavin	0.085 mg	5%
Niacin (as Niacinamide)	1 mg	5%
Vitamin B6 (as Pyridoxine HCl)	0.1 mg	5%
Vitamin B12 (as Cyanocobalamin)	0.3 mcg	5%
Biotin	15 mcg	5%
Pantothenic acid (as d-Calcium Pantothenate)	0.5 mg	5%
Calcium (as Calcium Lactate Gluconate)	200 mg	20%
Iron (as Ferrous Sulfate)	2.2 mg	12%
Iodine (as Potassium Iodide)	32.5 mcg	22%
Magnesium (as Magnesium Phosphate)	20 mg	5%
Zinc (as Zinc Sulfate)	0.75 mg	5%
Copper (as Copper Gluconate)	0.1 mg	5%
Aminogen® (13 Units)	125 mg	**

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories: 2,000	2,500
Total Fat	Less than 65g	80g
Saturated Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Potassium	3,500mg	3,500mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g
Calories per gram:	Fat 9 • Carbohydrate 4 • Protein 4	

\*\* Daily Value not established



3<sup>rd</sup> Party tested:  
NSF Certified  
for Sport (NSFCS)

2-scoops: 45 g CHO (maltodextrin); 21 g Pro (whey); 3 g Fat (MCT & Plant); 150-200 mg Calcium; 290 cal



# FIRST STRING – ATHLETES WITH PRIMARY GOAL OF SIZE & PERFORMANCE



➤ FS ingredients and native profile of ~60% CHO, 30% protein & 10% fat, are in accordance with current scientific evidence and recommendations that support maximizing muscle protein synthesis (MPS) and performance for the majority of athletes\* of all ages and especially those with the primary goal of increasing size, strength and speed



✓ Further defined as purely anaerobic (e.g. off-season bodybuilders, power lifters, sprinters, etc.), intermittent (most team sports – i.e. 1-3hrs of combined intermittent aerobic and anaerobic activity such as football, soccer, basketball, baseball, rugby, hockey) and short-medium endurance athletes where CHO/glycogen a the primary fuel source

➤ Targeted to all athletes but especially to the youth, college and professional athletes since it is NCAA approved (protein content) and NSF Certified for Sport (NSFCS)



✓ As a supplement, FirstString can help maximize a child's athletic development including overall growth potential, activity preparation and recovery. A healthy and important addition to the diet of youth athletes as it supplies valuable dairy proteins and calcium, i.e. great tasting "delivery system" for often missed but sorely needed development nutrition

\*Not engaged in prolonged caloric restriction (otherwise use WS and/or AminoBoost) – or Ultra endurance, which requires greater CHO



# FIRST STRING – ATHLETES WITH PRIMARY GOAL OF SIZE & PERFORMANCE



## Typical Use

- As a pre & post-workout supplement, each training day consume 30-40 minutes pre & post-workout (protein & glycogen need):



- ✓ Pre: 100-150 lbs 1.5 scoops; 151-200 2; 201-250 3; over 250 lbs use 4
- ✓ Post: Immediately post activity, repeat same dose unless also using AminoBoost (see muscle stacking) at which time you would consume FS 30 minutes following the immediate AminoBoost post exercise dose

- As a meal replacement or weight gain supplement use as needed throughout the day to meet individual protein, CHO, calorie and nutrient timing and amount goals



- Anyone wanting a great tasting, convenient meal replacement and/or additional protein source



# WHEY SMOOTH –HIGH PROTEIN LOW CALORIE PROTEIN SOURCE ANY GOAL



~20% CHO, 65% protein  
and 15% fat (.3:1 CHO:P)

Nutrition Facts		
Serving Size: 1 Scoop (40g)		
Servings Per Container: approximately 28.5 servings		
Amount Per Serving		
Calories 160	Calories from Fat 25	
		% Daily Value*
<b>Total Fat</b>	2.5g	4%
Saturated Fat	1g	5%
Trans Fat	0g	
<b>Cholesterol</b>	75mg	25%
<b>Sodium</b>	125mg	5%
<b>Total Carbohydrate</b>	8g	3%
Dietary Fiber	1g	4%
Sugars	2g	
<b>Protein</b>	25g	
Vitamin A	0%	Vitamin C 0%
Calcium	15%	Iron 8%
*Percent Daily Values are based on a 2,000 calorie diet, ** % Daily Value not established.		
	Calories: 2,000	2,500
Total Fat	Less than 65g	80g
Saturated Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Potassium	3,500mg	3,500mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g
Calories per gram:	Fat 9 • Carbohydrate 4 • Protein 4	
<b>Ingredients:</b> Protein Blend (Whey Protein Concentrate, Calcium Caseinate, Egg white Protein, Whey Protein Isolate, Micellar Casein), Cocoa Powder, Maltodextrin, High Oleic Sunflower Oil, Carboxymethyl Cellulose, Natural & Artificial Flavors, Xanthan Gum, Salt, Sucralose, Acesulfame Potassium.		



3<sup>rd</sup> Party tested:  
NSF Certified  
for Sport (NSFCS)

1-scoop: 25 g protein (whey); 8 g CHO (maltodextrin); 2.5g Fat (MCT & Plant); 150mg Calcium; 160cal

# WHEY SMOOTH –HIGH PROTEIN LOW CALORIE PROTEIN SOURCE ANY GOAL



WheySmooth (WS) in its native form is structured to deliver the highest quality protein as needed while simultaneously minimizing calories for athletic training and body composition goals

- Performance and body composition
  - ✓ Fast acting, low calorie & highly anabolic pre/post workout supplement to maximize MPS during restricted calorie dieting leading to desired fat/weight loss necessary for any athlete including physique competitors, fighters/wrestlers, weight lifters, etc.
- Ageing
  - ✓ Older athletes seeking physical improvements as the body becomes more resistant to anabolic effects of food & exercise (lower CHO protein addition)
- Weight/fat loss
  - ✓ Used as a primary protein but flexible source during a meal replacement weight loss program to establish the best possible outcome
- Flexible low calorie protein source
  - ✓ Add to anything to adjust the total meal (or daily) protein and other nutrient content as desired and remain within a specific calorie allotment



# WHEY SMOOTH –HIGH PROTEIN LOW CALORIE PROTEIN SOURCE ANY GOAL



## Typical Use

- As a pre & post-workout supplement, each training day consume 30-40 minutes pre & post-workout (Protein = ~BW X .14):



- ✓ Pre: 100-200lbs 1 scoop; 201-250 1.5; >251- 1.75
- ✓ Post: Immediately post activity, repeat same dose unless also using AminoBoost (see muscle stacking) at which time you would consume WS 30minutes following the immediate AminoBoost post exercise dose

- As a meal replacement for fat/weight loss



- ✓ Supply 2 small meals within any calorie restricted meal plan of 4-5 meals to allow freedom of choice from traditional foods for the remaining allotted foods/calories

- Anyone wanting a great tasting, convenient flexible/adjustable protein source (mix other ingredients as desired) to achieve current protein recommendations



**ALL NATURAL WHEY SMOOTH - HIGH PROTEIN  
LOW CALORIE PROTEIN SOURCE -ANY GOAL**



## Same Goal & Use-Different Customer



*~20% CHO, 65% protein  
and 15% fat (.3:1 CHO:P)*

<b>SUPPLEMENT FACTS</b>			
Serving Size: 1 1/2 Scoops (Approx. 35.3 g)			
Servings Per Container: 26			
	Amount Per Serving	% Daily Value*	
Calories	140		
Calories from Fat	15		
Total Fat	1.5 g	2%	
Saturated Fat	1g	5%	
Cholesterol	65 mg	22%	
Sodium	65 mg	3%	
Potassium	250 mg	7%	
Total Carbohydrate	6 g	2%	
Sugars	2 g	**	
Protein	25 g	50%	
Vitamin A	<2%	• Vitamin C	0%
Calcium	15%	• Iron	<2%
Vitamin D	0%	• Thiamin	0%
Riboflavin	0%	• Vitamin B-6	0%
Vitamin B-12	0%	• Pantothenic acid	0%
Phosphorus	<2%	• Magnesium	6%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
	Calories: 2,000	2,500	
Total Fat	Less than 65g	80g	
Saturated Fat	Less than 20g	25g	
Cholesterol	Less than 300mg	300mg	
Sodium	Less than 2,400mg	2,400mg	
Potassium	3,500mg	3,500mg	
Total Carbohydrate	300g	375g	
Dietary Fiber	25g	30g	
Calories per gram:	Fat 9 • Carbohydrate 4 • Protein 4		
** Daily Value not established			



**3<sup>rd</sup> Party tests:**  
Covance Labs, LA Analytical  
& Chemical Solutions

**1.5scoop: 25g protein (whey); 6g CHO (fruit extract/flavors); 1.5g Fat (dairy); 150mg Calcium; 140cal**

ALL NATURAL WHEY SMOOTH - HIGH PROTEIN  
LOW CALORIE PROTEIN SOURCE -ANY GOAL



# All Natural WheySmooth (NWS) Facts



- Virtually the same native macronutrient profile as WheySmooth
  - ✓ NWS 25g P, 6g CHO, 1.5g F = .24:1 CHO:P ratio; WS .3:1 CHO:P ratio
- Ion-exchanged whey protein concentrate & isolate from Fonterra, a New Zealand based co-op of over 11,000 dairy farmers
- Guaranteed free of rBGH (recombinant bovine growth hormone)
  - ✓ Since there's no test, protein must be sourced from a country such as New Zealand, where it is illegal to use
- Contains NO Genetically Modified Organisms (non-GMO)
- No preservatives, artificial colors, flavors, sweeteners, corn, wheat or yeast
- All natural flavoring includes Sweta<sup>®</sup> brand stevia (no licorice aftertaste) and luo han guo fruit extract
- Gluten free (as all dF pills and powders)





ALL NATURAL WHEY SMOOTH - HIGH PROTEIN  
LOW CALORIE PROTEIN SOURCE -ANY GOAL



## Typical Use -Same

- As a pre & post-workout supplement, each training day consume 30-40 minutes pre & post-workout (Protein = ~BW X .14):
  - ✓ Pre: 100-200lbs 1 scoop; 201-250 1.5; >251- 1.75
  - ✓ Post: Immediately post activity, repeat same dose unless also using AminoBoost (see muscle stacking) at which time you would consume NWS 30minutes following the immediate AminoBoost post exercise dose
- As a meal replacement for fat/weight loss
  - ✓ Supply 2 small meals within any calorie restricted meal plan of 4-5meals to allow freedom of choice from traditional foods for the remaining allotted foods/calories
- Anyone wanting a great tasting, convenient flexible/adjustable protein source (mix other ingredients as desired) to achieve current protein recommendations



**BEST PLANT PROTEIN - HIGH PROTEIN  
LOW CALORIE PROTEIN SOURCE -ANY GOAL**



# Same WS & NWS Goal & Use-Different Customer



*~20% CHO, 65% protein  
and 15% fat (.3:1 CHO:P)*

SUPPLEMENT FACTS		
Serving Size: 1 Scoop (34 g)		
Servings Per Container: 30		
	Amount Per Serving	% Daily Value*
Calories	130	
Calories from Fat	20	
Total Fat	3 g	5%
Saturated Fat	0.5 g	3%
Sodium	270 mg	11%
Potassium	160 mg	5%
Total Carbohydrate	7 g	2%
Dietary Fiber	1 g	<1%
Sugars	<1 g	**
Protein	21 g	42%
Calcium	65 mg	6%
Iron	7 mg	38%
Magnesium	40 mg	10%
<b>Multi Source Plant Protein Blend:</b> (Pea protein isolate, Cranberry seed, Chia seed, Sacha Inchi seed)	23,855 mg	**
<b>Branch Chain Amino Acids:</b> (L-Leucine, L-Isoleucine and Valine)	6,225 mg	**
<b>Glutamine</b>	3,475 mg	**
<b>Enzyme Blend:</b> (Alpha-galactosidase and Bromelain)	110 mg	**

\* Percent Daily Values are based on a 2,000 calorie diet.  
\*\* Daily Value not established.

**Other Ingredients:** Inulin, natural cocoa, natural chocolate, stevia, xanthan gum, natural flavor, glycine and silica.



**3<sup>rd</sup> Party tests:**  
Covance Labs, LA Analytical  
& Chemical Solutions

1-scoop: 21g protein (pea isolate/seed mix); 7g CHO (fruit extract/flavors); 3g Fat (plant); 65mg Calcium; 130cal

# BEST PLANT PROTEIN - HIGH PROTEIN LOW CALORIE PROTEIN SOURCE -ANY GOAL



## Vegetarians/Vegans & Those with Animal Protein Allergies

### Pea Protein Support

12wks supplementation with 25g 2Xs daily (1-AM, 1-Post WO) with pea & whey protein, both groups promoted a greater increase in muscle & strength compared to placebo.

**Conclusion:** "Since no difference was obtained between the two protein groups, vegetable pea proteins could be used as an alternative to Whey-based dietary products".<sup>1</sup>



### Protein blend:

- Pea isolate, Cranberry, Chia & Sacha Inchi Seed
- Fortified with Glutamine & Enzyme blend

<sup>1</sup>Babault et al. Journal of the International Society of Sports Nutrition (2015)

# BEST PLANT PROTEIN - HIGH PROTEIN LOW CALORIE PROTEIN SOURCE -ANY GOAL



## Typical Use -Same

- As a pre & post-workout supplement, each training day consume 30-40 minutes pre & post-workout (Protein = ~BW X .14):
  - ✓ Pre: 100-200lbs 1 scoop; 201-250 1.5; >251- 1.75
  - ✓ Post: Immediately post activity, repeat same dose unless also using AminoBoost (see muscle stacking) at which time you would consume BPP 30minutes following the immediate AminoBoost post exercise dose
- As a meal replacement for fat/weight loss
  - ✓ Supply 2 small meals within any calorie restricted meal plan of 4-5meals to allow freedom of choice from traditional foods for the remaining allotted foods/calories
- Anyone wanting a great tasting, convenient flexible/adjustable protein source (mix other ingredients as desired) to achieve current protein recommendations



# LEANMR-WEIGHT CONTROL

## A BETTER MEAL REPLACEMENT



~50% CHO, 42% protein  
and 8% fat (1.1:1 CHO:P)

### Supplement Facts

Serving Size: 2 scoops (50g)  
Serving Per Container: 20

	Amount Per Serving	% DV
Calories	190	
Calories from Fat	15	
Total Fat	2 g	3%
Saturated Fat	0.5 g	3%
Trans Fat	0 g	**
Cholesterol	10 mg	3%
Total Carbohydrate	24 g	8%
Dietary Fiber	7 g	28%
Sugars	0 g	**
Protein	21 g	40%
Calcium	115 mg	12%
Iron	2 mg	11%
Sodium	180 mg	8%
<b>Sustained Release Carbohydrates Blend</b>	<b>19.5 g</b>	<b>**</b>
Rice Oligodextrins, Digestion Resistant Maltodextrin (Fibersol-2), Isomaltulose, Glucomannan		
<b>Lean Fats Blend</b>	<b>2.5 g</b>	<b>**</b>
Flaxseed Powder, High Oleic Sunflower Oil, Conjugated Linoleic Acid		

\* Percent Daily Value based on a 2,000 Calorie Diet

\*\* Daily Value Not Established

**Ingredients:** Whey Protein Isolate, Rice Oligodextrins, Digestion Resistant Maltodextrin, Cocoa Powder, Palatinose, Flax Seed, Glucomannan, High Oleic Sunflower Oil, Natural & Artificial Flavors, Carboxymethyl Cellulose, Salt, Sucralose, Acesulfame Potassium, Xanthan Gum, Conjugated Linoleic Acid

**Allergen Warning:** This product was produced in a facility that may also process ingredient containing milk, egg, fish, shellfish, tree nuts, peanuts, wheat, and soybeans.

**Allergens:** Milk, Soy

Contains No: Fish, Crustacean shellfish, Tree nuts, Peanuts, or Gluten. No Starch, Artificial coloring or Preservatives added.

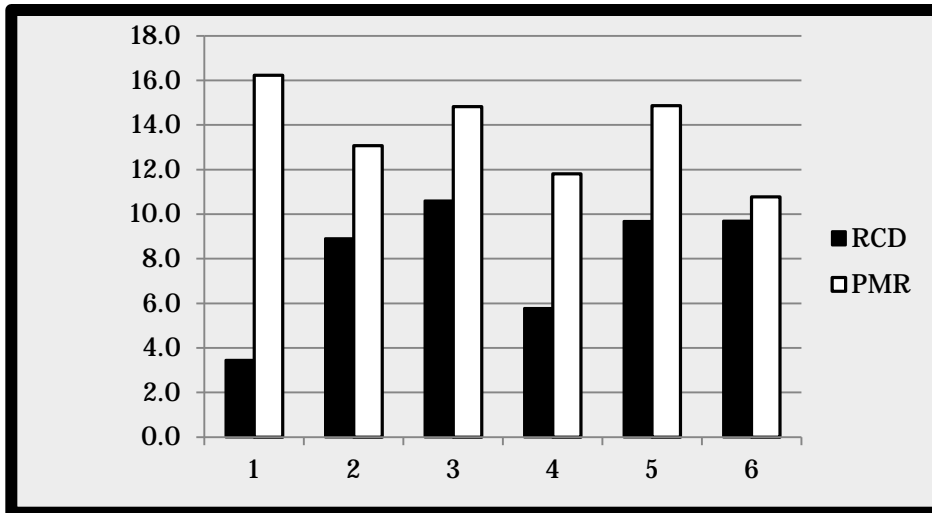


3<sup>rd</sup> Party tests:  
Integrity Labs-  
In-house

2-scoops: 21g protein (whey isolate); 24g CHO (sustained); 1.5g Fat (CLA & Plant); 7g Fiber; 115mg Calcium; 190cal



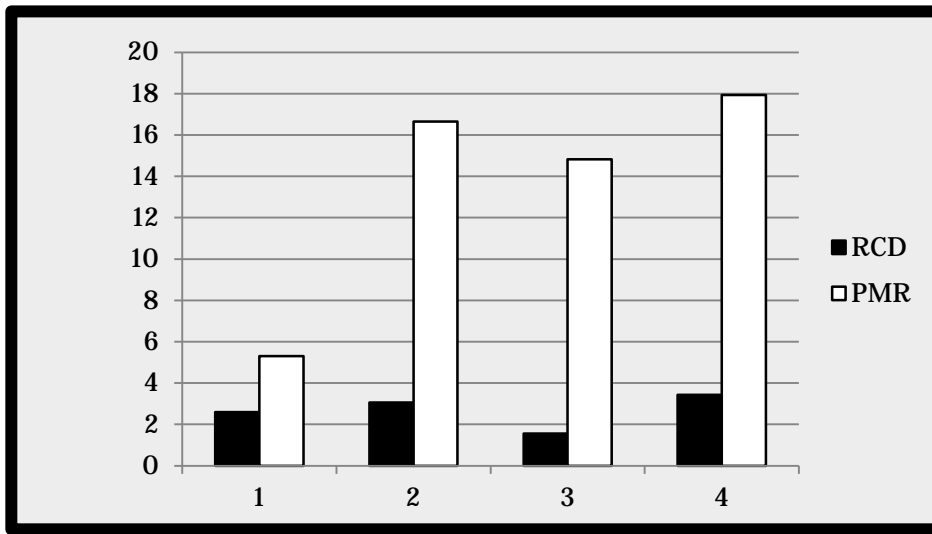
# MEAL REPLACEMENTS BEST WEIGHT LOSS AND MAINTENANCE SOLUTION



**Figure 1:** In all six studies groups using meal replacements (PMR) as part of their overall calorie intake lost significantly more weight than subjects using reduced calorie diets (RCD) alone. Heymsfield SB (2003)

## MR with Diet vs Diet Alone

- 2-3Xs > weight loss
- 9 fold improved maintenance



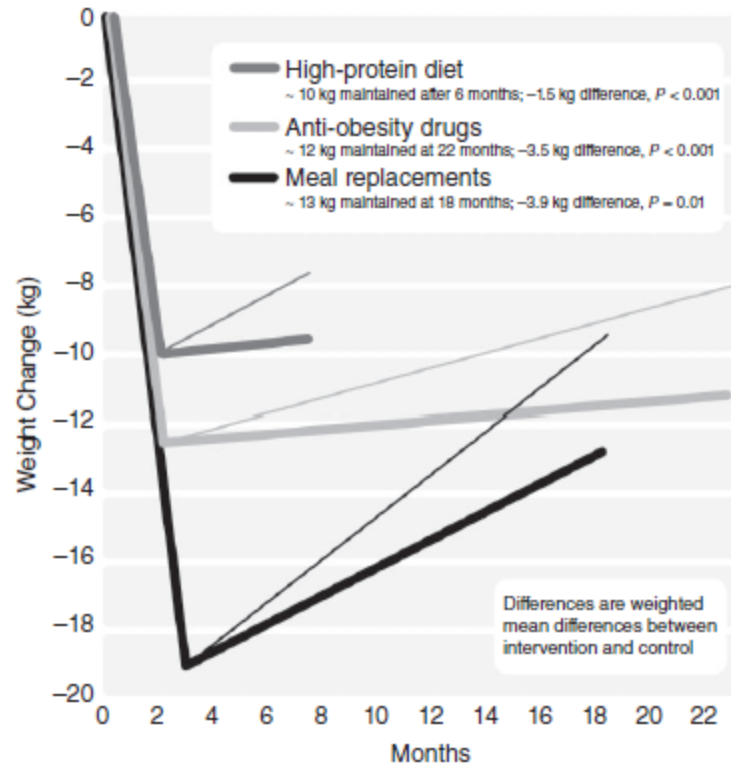
**Figure 2:** In a 1-year follow-up in the groups that were tracked, the subjects still using meal replacements maintained significantly more weight loss than the RCD group. Heymsfield SB (2003)



# MEAL REPLACEMENTS BEST WEIGHT LOSS AND MAINTENANCE SOLUTION



## MRs versus Diet Drugs



**2Xs >Wt Loss & Maintenance**

- MRs with diet vs diet alone
- MRs with diet vs diet plus anti-obesity drugs (2013)

**Figure 1** Bodyweight change during the very low-calorie diet or low-calorie diet period followed by the weight loss maintenance period. The thin lines represent the control subjects in each category while the thick lines represent the active intervention. (Adapted from Johansson et al. 2013a)

# LEANMR-WEIGHT CONTROL

## A BETTER MEAL REPLACEMENT



### Summary of Unique/Key Points

- *The specific macronutrient ingredients and ratios were selected in accordance with best potential weight control outcomes shown in clinical trials such as but not limited to:*
  - ✓ *Protein type (whey isolate) and amount (~42%)*
  - ✓ *CHO source (low GI sustained release) and amounts ( ~50%); high fiber (7g)*
  - ✓ *Dietary fat sources (unsaturated) and amounts (~8%, which allows to add daily fats as necessary).*
- *As a highly palatable addition to the daily diet, these ingredients & ratios along with usage recommendations would give the user best chances of improved satiety, preservation of LBM & energy expenditure while ameliorating the common discomforts of dieting when compared to other MRs formulas, restricted calorie diets alone or diet & drug therapies*

### Addresses (mechanisms of action):

- **Underreporting: portion control & calorie counts**
- **Satiety: meal freq, fiber, pro ratio/type, low GI CHO**
- **LBM preservation: pro ratio/type**
- **Energy expenditure & levels (cal burn): meal freq, pro ratio/type, LBM preserve**



- **21 g WHEY ISOLATE**
- **24 g SUSTAINED RELEASE CHO, NO SUGAR**
- **7 g FIBER**
- **2 g HEALTHY FATS**
- **115 mg CALCIUM**





# LEANMR-WEIGHT CONTROL

## A BETTER MEAL REPLACEMENT



## Typical Use

### Weight loss phase:

- Except in the early stage of diets where MRs may be used extensively in daily meal planning (often physician monitored sole source or predominant food source), **MRs are generally used to replace two meals a day and allow freedom of choice from traditional foods for the remaining allotted foods/calories. Always include and MVM**
- **Recommend:** MRs supply 2 small meals within any calorie restricted meal plan of 4-5 meals since it's been shown that frequent small meals are better for weight loss than fewer larger ones especially as it relates to satiety, preservation of LBM and energy levels

### Maintenance phase

- Consume 4-5 small meals daily that include **2 MRs for convenience and help insure overall diet quality while reducing food costs**

**Supply 2 small meals/d then 1-2 & Always Include a MVM**



# PRE/POST WORKOUT FORMULA & MR- ALL 4 GOALS BY CHOICE (NATIVE FORM/TASTE)



~55% CHO, 31% protein  
and 14% fat (1.7:1 CHO:P)

Nutrition Facts		
Serving Size: 2 Scoops (65 g)		
Servings Per Container: 20		
Calories 250		Calories from Fat 25
	Amount Per Serving	% Daily Value
<b>Total Fat</b>	<b>3 g</b>	<b>5%</b>
Saturated Fat	1g	5%
Trans Fat	0 g	0%
<b>Cholesterol</b>	<b>55 mg</b>	<b>18%</b>
<b>Sodium</b>	<b>170 mg</b>	<b>7%</b>
<b>Total Carbohydrates</b>	<b>35 g</b>	<b>12%</b>
Dietary Fiber	2g	8%
Sugars	3 g	**
<b>Protein</b>	<b>20 g</b>	<b>40%</b>
Vitamin A (as beta-carotene)	500 IU	10%
Vitamin C (as ascorbic acid)	6 mg	10%
Vitamin D (as cholecalciferol)	40 IU	10%
Vitamin E (as succinate)	3 IU	10%
Thiamine (as thiamin hydrochloride)	.15 mg	10%
Riboflavin	.17 mg	10%
Niacin (as niacinamide)	.2 mg	10%
Vitamin B6 (as pyridoxine hydrochloride)	.2 mg	10%
Vitamin B12 (as cyanocobalamin)	.6 mcg	10%
Biotin	30 mcg	10%
Pantothenic acid (as d-calcium pantothenate)	1 mg	10%
Calcium (as calcium lactate gluconate)	203 mg	20%
Iron (as ferrous sulfate)	4 mg	22%
Iodine (as potassium iodide)	15 mcg	10%
Magnesium (as oxide)	40 mg	10%
Zinc (as zinc sulfate)	1.5 mg	10%
Copper (as copper gluconate)	0.2 mg	10%

\*Percent Daily Values are based on a 2,000 calorie diet.  
\*\* % Daily Value not established.

**Other Ingredients:** Maltodextrin, Protein Blend (Whey Protein Concentrate, Whey Protein Isolate, Micellar Casein, Calcium Caseinate), Cocoa Powder, Fat Blend (High Oleic Sunflower Oil, Medium Chain Triglycerides, Safflower Oil), Carboxymethylcellulose Gum, Natural And Artificial Flavors, Vitamin And Mineral Blend (Calcium Lactate Gluconate, Magnesium Oxide, Ascorbic Acid, Ferrous Sulfate, Zinc Sulfate, Biotin, Beta Carotene, Vitamin E Succinate, Niacinamide, Copper Gluconate, Pantothenic Acid, Vitamin D [Cholecalciferol], Pyridoxine HCL, Riboflavin, Thiamin HCL, Cyanocobalamin, Potassium Iodide), Salt, Sucralose, Acesulfame Potassium, Xanthan Gum.



3<sup>rd</sup> Party tests:  
Health Canada

2-scoops: 35gm CHO (maltodextrin); 20gm Pro (whey); 3gm Fat (MCT & Plant); 150mg Calcium; 250cal



# PRE/POST WORKOUT FORMULA & MR- ALL 4 GOALS BY CHOICE (NATIVE FORM/TASTE)



**Pre/Post Workout Formula & Meal Replacement (PPMR) ingredients and native profile of approximately 55% CHO, 31% protein and 14% fat and ingredients allow it to be used across multiple goals**

➤ Use based on preference since PPMR in it's native form can work for all stated goals albeit without being necessarily specific as:



- ✓ FirstString in delivering the higher CHO needs for performance & very active athletes (CHO can be added to the PPMR mix as desired)
- ✓ LeanMR, which incorporates a whey isolate to eliminate cholesterol and specialized slow releasing CHO/fiber blend for weight control
- ✓ WheySmooth being a low calorie high protein alternative for any goal when lowering body fat is also a primary focus

➤ So: based on individual preference including taste, calorie & CHO needs, PPMR can be used as a MR in weight control, pre/post workout, daily protein &/or weight gain supplement and can be altered as desired by adding other protein, carbohydrate and or dietary fat sources



# PRE/POST WORKOUT FORMULA & MR- ALL 4 GOALS BY CHOICE (NATIVE FORM/TASTE)



## Typical use

- As a pre- and post-workout supplement for performance goals, each training day (dose ranges based on size) consume 30-40 minutes pre-workout (Protein =  $\sim$ BW X .14):



- ✓ 100-150lbs use 2 scoops; 151-200 2.5; 201-250 3; > 250 lbs 3.5
- ✓ Immediately following training, repeat the same dose unless also using AminoBoost (see muscle stacking) at which time you consume PPMR 30minutes following the immediate AminoBoost post exercise dose

- As a meal replacement for weight/fat loss, use PPMR to supply two small meals within any calorie restricted meal plan of 4-5 meals
- As a weight gain supplement use as needed throughout the day to meet individual protein, CHO, calorie & nutrient timing & amount goals
- Anyone wanting a great tasting, convenient meal replacement and/or additional protein source



# 3rd Party Tested Protein Mixes Summary



## ***FirstString Primary goal: Performance, Size and/or Speed***

Profile of ~60% CHO, 30% protein and 10% fat (2.2:1 CHO:P) is in accordance with current scientific evidence and recommendations that supports maximizing muscle protein synthesis (MPS) & training induced performance Outcomes for the majority of athletes including team sports requiring aerobic and anaerobic activities for 1-3hrs

**2-scoops: 45gm CHO (maltodextrin); 21gm Pro (whey); 3gm Fat (MCT & Plant); 150-200mg Calcium; 290-295cal**



## ***WheySmooth (WS) Primary goal: High Protein Low Calorie Protein Source for Any Goal***

Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P) make it an ideal protein source for:

- **Weight/fat conscious exercisers/athletes** to use to maximize MPS including as a pre/post workout formula
- **Meal Replacement/supp for weight control** integrated daily meal plan
- **Ageing** since WS is a convenient & superior protein source for the stimulation of MPS, it could act as a positive influence on the regulation of muscle mass across the lifespan

**1-scoop: 25g protein (whey); 8g CHO (maltodextrin); 2.5g Fat (MCT & Plant); 150mg Calcium; 160cal**



## ***All Natural WheySmooth Primary goal: Same as Above to Satisfy Different Customer's Preference***

**Profile of** Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P)

Grass fed, non-GMO, rBGH & gluten free, no preservatives, flavors, colors or sweeteners

**1.5scoop: 25g protein (whey); 6g CHO (fruit extract/flavors); 1.5g Fat (dairy); 150mg Calcium; 140cal**



## ***Best Plant Protein Primary goal: Same as WS Above to Satisfy Different Customer's Preference***

**Profile of** Profile of ~20% CHO, 65% protein, 15% fat (.3:1 CHO:P) and **100% Vegan/Vegetarian approved**

No-dairy or soy, hypoallergenic, non-GMO& gluten free, no preservatives, flavors, colors or sweeteners

**1-scoop: 21g protein (pea isolate/seed mix); 7g CHO (fruit extract/flavors); 3g Fat (plant); 65mg Calcium; 130cal**

- **All Mixes can be altered as desired by adding other protein, carbohydrate and or dietary fat sources**
- **Mixes may added to other foods/drinks including baking**
- **All Mixes are Gluten Free & 3<sup>rd</sup> Party Tested**

# 3<sup>rd</sup> Party Tested Protein Mixes Summary



## **Primary Goal: Weight Control**

Profile of ~50% CHO, 42% protein and 8% fat (1.1:1 CHO:P), with 7gms fiber is in accordance with current scientific evidence and recommendations that supports maximizing weight control outcomes including satiety, energy expenditure, LBM and maintenance

**2-scoops: 21g protein (whey isolate); 24g CHO (sustained); 1.5g Fat (CLS & Plant); 7g Fiber; 115mg Calcium; 190cal**



## **Primary Goal: All 4 Protein Mix Supplement goals based on taste or desired native form**

The Profile of ~55% CHO, 31% protein & 14% fat (1.7:1 CHO:P) gives PPMR it's goal diversity

Based on individual preference including taste, calorie & CHO needs, PPMR can be used as:

1. MR in as needed for weight loss and/or maintenance
2. Meal or daily supplement for weight gain
3. Pre/post workout formula to enhance exercise induced results especially within "Metabolic Windows"
4. Daily protein supplement to help meet the current increased protein recommendations to support:
  - ✓ Prolonged MPS, overall health, weight control & slow natural ageing

**2-scoops: 35gm CHO (maltodextrin); 20gm Pro (whey); 3gm Fat (MCT & Plant); 150mg Calcium; 250cal**



## **Primary goal: Maximizing MPS for any User: 1) within the Lowest Calories**

### **2) As an Addition to Muscle Supplement Stacking Program**

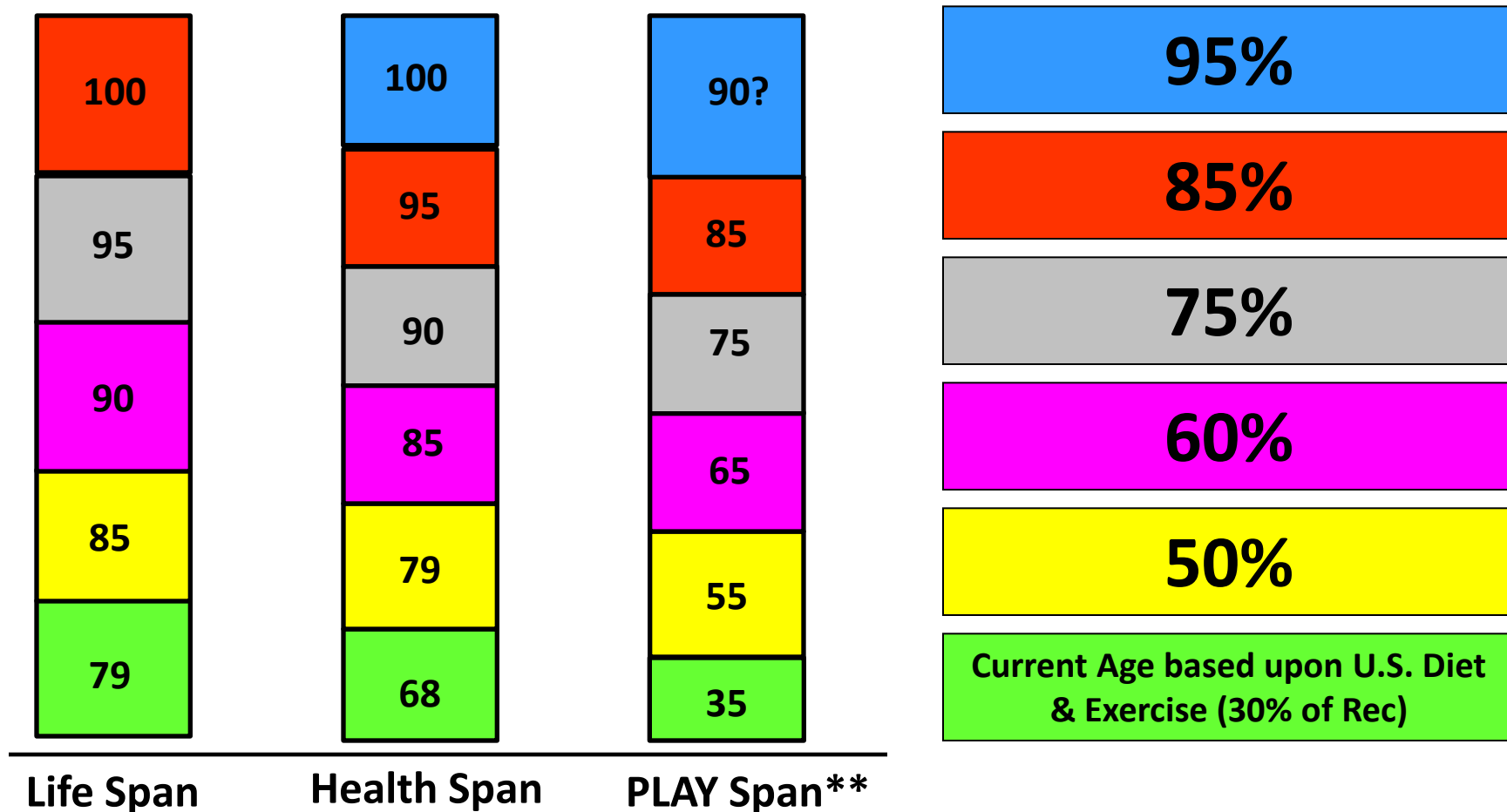
•Proper integration can maximize long-term muscle gains through creating & supporting a constant anabolic environment including staying off inevitable age related muscle loss

**1-scoop: 12g EEA, 6000mg BCAA, 4000mg Leucine**

- All Mixes can be altered as desired by adding other protein, carbohydrate and or dietary fat sources
- Mixes may added to other foods/drinks including baking
- All Mixes are Gluten Free & 3<sup>rd</sup> Party Tested

# GOAL OF MAXIMIZING NUTRITION & ACTIVITY

FILL GAPS AND KEEP MOVING



*Modern humans have the potential to live longer/better*

# NUTRITION SUMMARY -EVERYONE EXTENDED HEALTH & PLAY-SPAN VS A LIFESPAN



**The minimum** - eat the best you can while maintaining a healthy weight & make sure:

- Multivitamin & mineral from womb to grave
- 1000-1200 mg/day calcium
  - ✓ Diet first and supplements as needed
- 5-600 mg/day of omega 3 (EPA & DHA 3:2)
  - ✓ Fatty fish 2-4 Xs/week or add supplement
- Protein 1 g/LB **LBM** divided 4-5 Xs/day
  - ✓ If exercising use ~25-35 g (depending on age) fast acting protein 30-40 min before & repeat immediately following

**Sports nutrition is the new healthy aging – keeping active and staying lean**

**And don't buy from the mass market if you expect results**







# APPENDIX



# Performance, Size, Speed, Muscle Super Stack

## Active multivitamin mineral formula

- Take 2 daily: 1- immediately following 1st large meal and 1 following the last

## SuperOmega-3

- Take 1 daily if not consuming 2-4 svgs/wk of fatty fish

## FirstString

- Take 2-scoops 30-45min before workout
- Take 2-scoops 20-30min after post workout AminoBoost dose
- Use anytime throughout the day to add protein/calories as needed to meet calorie allotment

## WheySmooth

- Take 1.5 scoops right before bedtime

## AminoBoostXXL (workout days only)

- Take 1.5 scoops ~10min before workout (add to 1-2.5 scoops of NO7Rage if using this product – see below) and may continue to drink during first 20min of workout
- Take 2-scoops immediately following workout

## Begin Creatine Monohydrate loading at 2nd week of training

### Creatine Monohydrate (CrM)\*

•**Creatine Loading 5-day phase:** mix 1 scoop (5gms) with 4-8oz of favorite fluid/shake and take 4 times daily with a carbohydrate containing meal/drink for first 5 days. To help maximize creatine uptake, split doses throughout the day with meals/drinks containing ~25 to 45 grams of carbohydrate (depending on size)

•On training days use one dose before workout and one after with meals/drinks. May mix with your pre & post training formula

•**After 5-day loading phase** take 1 scoop with AM meal and 1 scoop with post workout shake (or PM meal on non-workout days)

•**At 3<sup>rd</sup> week take one scoop daily with any meal** when not taking CreatineXXL (i.e. use CreatineXXL at different times so total creatine is evenly dispersed throughout the day)

## Begin below supplements at 3rd week of training

### NO7Rage (optional --workout days only)

•Take 1-2.5 scoops (depending caffeine sensitivity – start with 1 and move to 2 if not uncomfortably affected by caffeine) ~10min before workout (may mix with AminoBoost and continue to consume during 1st 20min of workout)

•NO7Rage contains 175mgs of caffeine per scoop. *As a reference: Starbucks Grande-drip coffee contains ~330mgs of caffeine, close to the same amount in 2-scoops of NO7Rage*

### CreatineXXL\*

•On workout days take 8 tabs with first meal of the day including some carbohydrates and 8 tabs with FirstString shake after workout. On non-workout days take 8 tabs twice/daily with a meal when not taking CrM (i.e. spread entire creatine dosage as evenly as possible throughout the day)

*\*Programs total daily creatine: 5-day loading phase = 20gms; week 2 =10gms; from 3<sup>rd</sup> week forward 11gms (if using 2-scoops NO7=16gms on workout days); To maximize uptake, creatine intake should be spread as evenly as possible throughout the day with carb containing meals or shakes.*

# WHY DOTFIT POWDERS



**dotFIT 3<sup>rd</sup> Party Tested Powders are part of the Practitioner's Product line**

- **Great taste – consistently wins the taste test**
- **dF products are Practitioner's Product only for athletes, exercisers and their families**
- **3<sup>rd</sup> party tested for ingredients and claims – NO PROTEIN SPIKING\* (see below)**
  - ✓ Including additional NSF Certified for Sport on relevant products
- Though dF is competitively priced, any noted higher cost is due to other manufactures eliminating the practitioner and going direct to mass distribution where they compete on price thus compromising the products such as the use of “protein spiking”:
  - ✓ \*The practice called “protein-spiking” is when manufacturers add cheaper non-protein ingredients, such as amino acids, to increase the nitrogen content, which then makes it appear as if the product contains more protein than it actually has. Class action suits have been filed against many top brands
- **Mass market powders don't come with the gym, professional staff, proper usage instructions and integration or fitness professional - and we don't trust them**
- **Synergistic with all dF products – no ingredient “spiking or dusting” so no potential nutrient overages**

