

## The use of the Master Amino Acid Pattern (MAP) during Physical Activity

The International Nutrition Research Center (INRC), a leading research institution in the human nutrition field, is pleased to introduce the Master Amino Acid Pattern (MAP). MAP is a dietary supplement, which can provide an easier, healthier, and more effective nutrition, in comparison to any dietary protein or amino acid formula.

During physical activity, the use of MAP in conjunction with a well-balanced diet, allows to:

- **Maximize body protein synthesis**
- **Maximize muscle strength, endurance and volume**
- **Strengthen and firm body tissues (i.e. skin, muscle)**
- **Minimize body fat tissue**
- **Minimize the recovery period after physical activity**
- **With less than ½ calorie per day!**

The use of MAP can provide a healthier and more effective muscle strength, endurance and volume in comparison to that provided by any dietary protein, amino acid formula, or even by the use of steroids, due to the following facts:

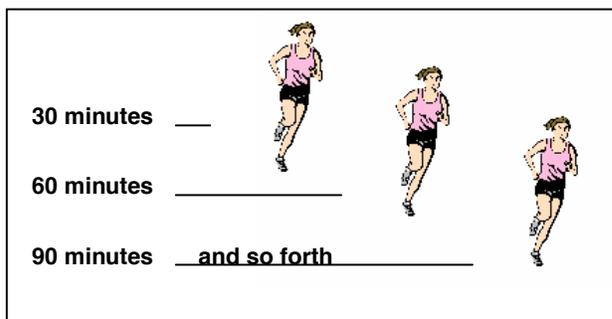
- **MAP provides the highest nutritional value in comparison to any dietary protein or amino acid formula.** MAP provides an unprecedented 99% Net Nitrogen Utilization (NNU), which is the percentage of its constituent amino acids that act as precursors of the body's protein synthesis, namely, as "building blocks." By comparison, dietary proteins provide between 16% (whey, casein or soy) and 48% NNU (hen egg). Therefore, 10 tablets of MAP can provide a body's protein synthesis equivalent to that provided by approximately 12.5 Oz of fish, poultry or meat.
- **MAP releases the lowest amount of metabolic waste in comparison to any dietary protein or amino acid formula.** MAP releases only 1% of nitrogen catabolites (metabolic waste). By comparison, dietary proteins release between 52% and 84% of nitrogen catabolites.
- **MAP provides the lowest amount of calories in comparison to any dietary protein or amino acid formula.** 10 tablets of MAP, with only half a calorie, provide the nutritional value of approximately 12.5 Oz. of

meat, fish or poultry, which in turn provide from 900 to 1,600 calories.

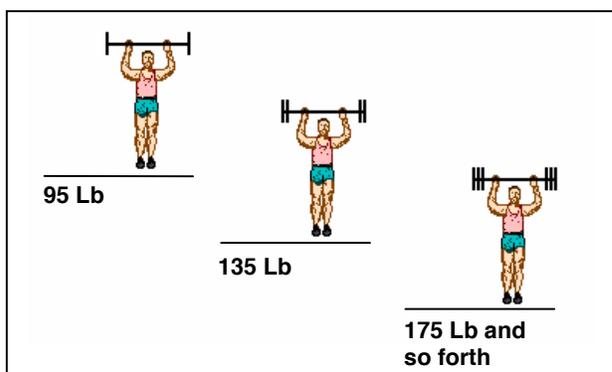
- **MAP is digested in less than 23 minutes.** This is far less time than the 3 to 5 hours necessary to digest common dietary proteins.
- **MAP is not a medicine, it is a dietary supplement.** MAP can be safely used by everyone to reach the daily protein requirement, regardless of age, gender or health status.
- MAP contains no fat, sodium, sugar, yeast, gluten, soy, corn, wheat, milk products or preservatives.

### Tips for beginners:

1. **MAP suggested use:** take 5 to 10 tablets of MAP, 30 minutes before performing your physical activity.
2. **To increase muscle endurance,** progressively raise your physical work duration until you reach your goal. (Caution: Before starting any physical activity, consult your physician). To illustrate:



3. **To increase muscle strength,** progressively raise your physical work load until you reach your goal. To illustrate:



### Tips for intermediate or advanced athletes:

1. Take 5 to 10 tablets of MAP 30 minutes before working out.
2. Take your Protein Daily Requirement (PDR) (Table I), in conjunction with the daily requirement of vitamins, minerals, trace elements, and essential fatty acids.
3. Perform either the A or B technique, described below. **Caution:** These techniques are intended for intermediate or advanced athletes.
4. To avoid serious injury, observe the following precautions:
  - Read all warnings and obtain proper instruction on use of the workout equipment prior to its use.
  - Use appropriate positioning, speed and controlled movements.
5. After physical activity, allow at least 48 hours for the exercised muscle to recover.
6. Sleep at least 9 hours per day.
7. For best results try to increase your maximum weight resistance for each specific muscle every week.
8. Follow the technique until you reach the desired muscle strength and volume.

**A. The Decreasing Resistance Technique.** This technique can be implemented alone or in combination with the Movement Segmentation Technique. The purpose of this technique is to vary the degree of weight resistance for a specific muscle, beginning with the maximum resistance and progressively decreasing to the minimum resistance. This technique can be used for any muscle group exercise. *Maximum resistance (MR) is the maximum weight that can be actively moved as a result of a muscle contraction (pull) or extension (push).* Proceed as follows:

1. Warm up the muscle you are going to workout, for about 15 minutes, using only 25% of that specific muscle's maximum resistance (weight).
2. Starts working out by using the muscle's maximum resistance, with a smooth, slow and controlled movement, then return to the starting position. If you indeed use the maximum resistance, you should be able to perform no more than two repetitions.
3. After resting 2 minutes, at most, decrease the resistance by 10%, and perform as many repetitions as possible.
4. Repeat number 3 for as long as the exercise requires muscle effort.

### B. The Decreasing Resistance Technique combined with the Movement Segmentation Technique:

The purpose of this technique is to use a varying degree of weight resistance throughout each segment of the muscle's full range of motion (length of movement). This technique can be used for any muscle group exercise.

1. Warm up the muscle you are going to work out, for about 15 minutes, using only 25% of the specific muscle's maximum resistance.
2. Start working out with the maximum resistance, with a smooth, slow and controlled movement of the first 2-3 inches of the muscle's full range of motion, then return to the starting position. If you indeed use the maximum resistance, you should be able to perform no more than two repetitions.
3. After resting 2 minutes, at most, decrease the resistance by 10% and at the same time, increase the segment (length) of the movement by 2-3 inches, and perform as many repetitions as possible.
4. Repeat number 3 until you reach the full length of the movement. Continue with number 5.
5. After resting 2 minutes, at most, decrease the resistance by 10%, and perform as many repetitions as possible.
6. Repeat number 5 for as long as the exercise requires muscle effort.

Table I. Protein Daily Requirements (PDR) (Grams)		
Height	Male	Female
5'	45	40
5' 1"	47	42
5' 2"	50	44
5' 3"	52	46
5' 4"	54	48
5' 5"	56	50
5' 6"	59	52
5' 7"	61	54
5' 8"	63	56
5' 9"	65	58
5' 10"	68	60
5' 11"	70	62
6'	72	64
6' 1"	74	66
6' 2"	77	68
6' 3"	79	70
6' 4"	81	72
6' 5"	83	74
6' 6"	86	76

## **MAP Recommendations**

10 tablets of MAP is equal to 10 grams. Ten grams of MAP provides approximately the same amount of protein as one pound of meat, fish or poultry.

Taking 5 to 10 tablets of MAP 30-45 minutes prior to activity is considered the average dosage to enhance any exercise regime.