



Max ARM (Anabolic Recovery Matrix) from Max Muscle Sports Nutrition (MMSN) was designed to follow rapid recovery and anabolic science. Created to be the ultimate post-workout formula, Max ARM provides the necessary nutrients to support maximum muscle mass activation, restore fluids and electrolytes, replenish glycogen and accelerate overall muscle recovery and repair. Max ARM provides bioactive ingredients to support muscle enzyme activators of protein synthesis, Akt/mTOR (rapamycin) and p70 S6 kinases, muscle Heat Shock Protein (HSP) activating nutrients and GLUT4 potentiators.†

The science of recovery shows that there are 3 critical requirements for optimal muscle recovery and repair following an intense exercise session. First, is the replacement of fluids and electrolytes. Second, is the rapid replenishment of muscle glycogen, and third is the replacement of amino acids to support the muscle rebuilding process and minimize muscle protein breakdown.

To support protein synthesis and nitrogen retention, each serving of Max ARM delivers 28 grams (56% DV) of the highest quality blend of whey protein isolate (WPI) and whey protein concentrate (WPC)

available. Max ARM contains the Muscle Akt/mTOR and p70 S6k Activator Blend. Muscle Akt/mTOR and p70 S6k kinases are muscle enzyme activators of protein synthesis and supported by the branched chain amino acids (BCAA) along with arginine, citrulline malates and the same proprietary blends found in MMSN Cx3™ including CreaPure®, Creatine MagnaPower®, and Creatine Pyruvate. The BCAAs (leucine, isoleucine and valine), particularly leucine, have anabolic effects on protein synthesis, muscle cell growth and decreasing the rate of protein breakdown (degradation). This effect is most beneficial post-exercise. Max ARM contains highly concentrated levels of leucine. The dramatic effect of supplementing with the BCAAs and arginine is mediated through signaling pathways controlling protein synthesis involving phosphorylation of the target enzymes Akt/mTOR (rapamycin), a protein kinase and the sequential stimulation of p70 ribosomal S6 kinase (p70 S6K) through enhanced translation of specific mRNAs. The Akt/mTOR pathway in muscle is upregulated during the hypertrophy (increase in muscle size) phase.†

An exciting area in the molecular biochemistry of protein synthesis are the role of Heat Shock Proteins (HSP). HSP are molecular chaperones that aid in the transport of proteins throughout the cell's various compartments to support protein synthesis. HSP or chaperones also protect the newly synthesized proteins against denaturation. HSP stabilize proteins as a result of altered pH due to high intensity exercise, oxygen deprivation, and stress. Left uncorrected, mis-folded proteins form aggregates that may eventually kill muscle cell. To support this important function of protein synthesis, Max ARM contains the Heat Shock Protein Activator Blend with glutamine peptides, bilberry, schisandra, rhodiola and paeonia.

Max ARM contains the functional glutamine peptides found in Gluta Matrix™ including the Gluta-Tri Triple Fusion Blend™ (L-glutamine, glutamine peptides [L-alanyl-L-glutamine, L-glycyl-L-glutamine (from hydrolyzed gluten)]. Special receptors in the intestine facilitates maximum and intact absorption of glutamine peptides to allow the glutamine to be delivered to the muscles promoting a rapid recovery from exercise and supporting lean muscle mass.

Each serving of Max ARM provides 32 grams of multi-source carbohydrates with rapid to extended absorption rates including, waxy maize starch (amylopectin), maltodextrin, fructose and dextrose. Waxy maize starch has the highest molecular of the group followed by maltodextrin with an intermediate molecular weight and fructose with the lowest molecular weight. Max ARM provides the ideal forms and amounts of carbohydrates to pack glycogen in muscles for maximum recovery.

For maximum muscle cell carbohydrate enhancement, Max ARM provides the GLUT4 Activator Blend with banaba leaf extract (1% corosolic acid) and Promilin® (fenugreek extract, 4-hydroxyisoleucine). Promilin® functions to potentiate the action of insulin resulting in complete post-exercise replenishment of carbohydrates in the muscles and promoting increases in muscle mass and strength.

Additionally, research has demonstrated that corosolic acid, a triterpenoid compound, facilitates glucose transport within cells by stimulating glucose transporter isoform 4 translocation (GLUT4). By activating GLUT4 this assures maximum carbohydrate utilization by muscles.†

Max ARM is the total package for complete recovery science providing the necessary ingredients for rapid and efficient recovery and muscle building. Max ARM is instantized and delivers a refreshing and satisfying Intense Strawberry flavor. Hydration recovery at its finest...you won't need anything else!

#### Key References

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