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| **Stage 1: Energy Preparation**   * **10 Min prior to workout** * **steady flow of nutrietn intake as workout proceeds** | * **INCREASE NUTRIENT DELIVERY TO MUSCLE** * **SPARE CURRENT MUSCLE GLYCOGEN/PROTIEN LEVELS** * **SET NUTRITIONAL STAGE FOR FASTER RECOVERY AFTER WORKOUT** | * **HIGH GLYCEMIC CARBS: *25g*** | ***GATORADE, CEREAL, HONEY, FRUIT*** |
| * **WHEY PROTEIN: *6-10g*** | ***PROTIEN SHAKE, PEANUT BUTTER, MEATS, NUTS*** |
| * **SODIUM: *100-250mg*** | ***CHEESE, PRETZELS*** |
| **stage 2: Anabolic growth**   * **within 45 min after workout has ended** * **most important phase of nutrient uptake** | * **SHIFT CATABOLIC TO ANABOLIC GROWTH** * **INCREASE SPEED OF WASTE REMOVAL IN BLOOD** * **REPLENISH MUSCH GLYCOGEN STORAGE** * **INITIATE REPAIR OF DAMAGE AND MUSCLE GROWTH** | * **HIGH GLYCEMIC CARBS: *60-70g*** | ***GATORADE, CEREAL, HONEY, FRUIT*** |
| * **WHEY PROTEIN: *18-20g*** | ***PROTIEN SHAKE, PEANUT BUTTER, MEATS, NUTS*** |
| **stage 3: growth phase i**   * **first 4 hours after workout** * **rapid growth stage** | * **MAINTAIN INSULIN SENSETIVITY FOR INCREASE NUTRIENT TRANSFER** * **MAINTAIN ANABOLIC GROWTH PHASE INITIATED BY STAGE 2** * **DECREASE TIME OF RECOVERY** | * **WHEY PROTIEN: *15g*** | ***PROTIEN SHAKE, PEANUT BUTTER, MEATS, NUTS*** |
| * **CAESIN (DAIRY) PROTIEN: *5g*** | ***CHEESE, YOGURT, MILK, CAESIN PROTIEN POWDER*** |
| * **LOW GLYCEMIC CARBS:*42g*** | ***PASTA, WHEAT BREAD, POTATOES, OATMEAL*** |
| **stage 4: growth phase ii**   * **16 – 18 hours following workout** * **sustained growth stage** | * **MAINTAIN POSITIVE NITROGEN BALANCE** * **STIMULATE PROTEIN SYNTHESIS FROM AVAILABLE AMINO GROUPS** * **PROMOTE MUSCLE DEVELOPMENT** | * **PROTIEN**   ***MEALS EVERY 2 – 3 HOURS*** | ***PROTIEN SHAKE, PEANUT BUTTER, MEATS, NUTS,***  ***CHEESE, YOGURT, MILK, CAESIN PROTIEN POWDER*** |
| * **LOW GLYCEMIC CARBS**   ***MEALS EVERY 2 – 3 HOURS*** | ***PASTA, WHEAT BREAD, POTATOES, OATMEAL*** |

**Ivy, John, and Robert Portman. *Nutrient Timing: The Future of Sports Nutrition*. Laguna Beach, CA: Basic Health Publications, 2004. Print.**