HIGH PERFORMANCE NUTRITION FOR NETBALL

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1. Nutrition foundations

Pre-training/game day

3. Recovery

4. Hydration

5. Female specific nutrition



BACK TO BASICS

HOW MANY SERVES? Vegetables - 5 serves Fruit - 2 serves Grains - 6 serves Meat/alternatives - 2.5 serves Dairy/alternatives - 2.5

More info at: https://www.eatforhealth.gov.au

GRAINS

CARBOHYDRATE FOODS PROVIDE:

- ENERGY
- FIBRE GUT HEALTH
- ESSENTIAL VITAMINS & MINERALS



MEAT& ALTERNATIVES

PROTEIN FOODS:

- BUILD & REPAIR MUSCLE
- PROVIDE US WITH:
 - o IRON
 - HEALTHY FATS (FISH)
 - o ZINC
 - o **B12**



FRUIT & VEGETABLES



FRUITS & VEGGES PROVIDE:

- FIBRE
- VITAMINS & MINERALS
- WATER
- CARBOHYDRATES (FRUITS+ SOME VEG)



MILK & ALTERNATIVES



DAIRY FOODS PROVIDE:

- PROTEIN
- CARBOHYDRATES
- CALCIUM
 - **FOR BONE HEALTH**
- OTHER ESSENTIAL VITAMINS & MINERALS E.G. VITAMIN A, D, B12, ZINC



PRE-TRAINING & GAME DAY NUTRITION NUTRITION TIMING

- TIMING OF FOODS PRE-TRAINING & GAMES IS IMPORTANT TO MAXIMISE SLOW-RELEASE ENERGY AND PREVENT BLOATING/LETHARGY.
- 2-4 HOURS BEFORE TRAINING/GAME: FOCUS= COMPLEX CARBOHYDRATES TO FUEL YOUR SESSION!
- <1 HOUR BEFORE TRAINING: TOP UP WITH FAST BURNING CARBOHYDRATES



COMPLEX CARBOHYDRATES

EXAMPLES:

- WHOLEGRAIN BREAD
- WHOLEGRAIN PASTA
- OATS
- DAIRY FOODS
- BROWN RICE
- BARLEY
- ANCIENT GRAINS E.G. QUINOA
- SWEET POTATO
- CORN
- BEANS/LEGUMES

MEAL EXAMPLES



BREAKFAST

LUNCH

DINNER

SIMPLE CARBOHYDRATES



TIMING OF CARBOHYDRATES

WHEN TO USE COMPLEX CARBS

- Every day for good health
- 2-4 hours pre-training/games
- Post training/games to replenish lost stores in muscle



WHEN TO USE SIMPLE CARBS:

- <1-2 hours before training/games</p>
- During training/games hungry or fatigued
- Between sessions if <4 hours



POST-TRAINING/GAME

Remember the 3 R's

REPAIR - muscles with protein REPLENISH - with Carbohydrates REHYDRATE - replace water/sweat lost









REPLENISH

-

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WITH CARBOHYDRATES



REHYDRATE

WITH FLUID





ELITE RECOVERY SNACK











RECOVERY MEAL

FOCUS: Balanced Meal • Lean protein • Carbohydrates













HYDRATION

WHY IS IT IMPORTANT?

DEHYDRATION:

- I. INCREASES FATIGUE
- 2. IMPAIRS DECISION-MAKING
- 3. MAY INCREASE RISK OF MUSCLE CRAMPING

"SUFFICIENT FLUID SHOULD BE CONSUMED DURING EXERCISE TO LIMIT DEHYDRATION TO LESS THAN ABOUT 2% OF BODY MASS" - IOC

WHAT DOES THAT MEAN? 70KG PLAYER = 1.4KG LOSS



ACHIEVING ADEQUATE HYDRATION

- 1. ENSURE YOU AR£ HYDRATED BEFORE YOU ARRIVE TO NETBALL
- 2. *CHECK:*
 - o THIRST BODY'S INTERNAL HYDRATION SENSOR
 - o URINE AIM FOR PAL£ STRAW
 - 0 WATER AND SALT INTAKE
- 3. DRINK A MIXTURE OF WATER AND SPORTS DRINKS DURING TH£ GAME.

"WE DONOT LOS£ PLAIN WATER WHEN WE SWEAT AND PLAIN WATER ALON£ WILL NOT ALLOW US TO RECOVER £FF£CTIV£LY." -S. M. SHIRREFFS

REPLENISH 1.5L OF FLUID FOR £VERY 1KG LOST

• ACHIEVE THIS THROUGH A MIXTURE OF WATER, SPORTS DRINKS, AND FOOD.

FEMALE SPECIFIC NUTRITION CONSIDERATIONS IRON REQUIREMENTS



ATHLETES OFTEN HAVE AN INCREASED REQUIREMENT FOR IRON

- PERSPIRATION (2.5MG LOSS/LITRE SWEAT)
- FOOT STRIKE CAPILLARY DAMAGE
- BLOOD LOSS MENSTRUATION, INJURY
- INADEQUATE INTAKE
 ¹HEALTHY¹ EATING
- VEGETARIANS



HOW DO YOU KNOW IF YOUR IRON IS LOW?

IRON ABSORPTION

- HAEM IRON (FROM MEAT, SEAFOOD, POULTRY) IS WELL ABSORBED (>20%)
- NON-HAEM IRON (PLANT SOURCES) IS POORLY ABSORBED (5-10%)

THE AMOUNT OF NON-HAEM IRON ABSORBED IS INFLUENCED BY A NUMBER OF OTHER DIETARY FACTORS E.G. VITAMIN C

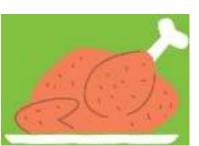


SOURCES OF HAEM IRON

- LAMB LIVER 11MG/1DDG
- OYSTERS 3.5MG/100G
- BEEF 4MG/100G
- LAMB 3MG/1DDG
- CHICKEN 1MG/1DDG
- TINNED TUNA 1.1MG/1DDG
- FISH 0.6MG/100G







SOURCES OF NON-HAEM IRON

- PISTACHIOS 13MG/100G
- FORTIFIED CEREAL 10MG/100G
- CASHEWS 5.0MG/100G
- DRIED APRICOTS 4.4MG/700G
- WHOLEMEAL BREAD 4MG/100G
- *LENTILS* 3.2MG/100G
- SPINACH 3.2MG/100G
- BEANS 2.5MG/100G
- BROCCOLI 1.0MG/100G
- EGG ONE LARGE 0.7MG



CALCIUM REQUIREMENTS

- IMPORTANT FOR BONE HEALTH
 - ALONG WITH VITAMIN D AND REGULAR MENSTRUAL CYCLE
- REQUIREMENTS: X3-4 SERVES PER DAY
- BEST SOURCE IS DAIRY FOODS
- NON-DAIRY FOOD SOURCES
 - FORTIFIED MILKS, CEREALS, TOFU
 - CHECK IF CONTAINS CALCIUM
 - CANNED SALMON/SARDINES, NUTS, GREEN VEGETABLES

CALCIUM ESPECIALLY IMPORTANT IF IRREGULAR MENSTRUAL CYCLE OR HISTORY OF STRESS FRACTURES



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- AUSTRALIAN GUIDE TO HEALTHY EATING 5 FOOD GROUPS
- PRE TRAINING/GAME NUTRITION:
 - COMPLEX OR SLOW BURNING CARBOHYDRATES 2-4 HRS BEFORE
 - SIMPLE OR FAST BURNING CARBOHYDRATES -1 HR BEFORE

• 3 R'S FOR RECOVERY:

- REPAIR WITH PROTEIN
- REPLENISH CARBOHYDRATES
- o REHYDRATE WATER + SODIUM LOSSES
- HYDRATION 2% LOSS OF TBW = SIGNIFICANT REDUCTION IN PERFORMANCE
- PREVENT DEHYDRATION BE AWARE OF:
 - o THIRST
 - o URINE COLOUR
- IRON REQUIREMENTS CONSIDER ABSORPTION:
 - HAEM VS NON-HAEM SOURCES
 - o VITAMIN C

• CALCIUM REQUIREMENTS:

- SOURCES OF CALCIUM E.G. DAIRY+ FORTIFIED FOODS
- o IMPORTANT FOR BONE & MENSTRUAL HEALTH