

The logo features the words "TEXAS" and "RANGERS" in a large, bold, blue serif font with a red outline. The letters are filled with a repeating pattern of the Texas Rangers star. Below this, the word "nutrition" is written in a white, italicized serif font on a red ribbon banner, flanked by two blue stars.

TEXAS
RANGERS
nutrition

10-MINUTE TALKS

THE “WHY”

WHY IS NUTRITION IMPORTANT FOR ATHLETIC PERFORMANCE?

- Nutrition or nutrient intake can enhance performance of and recovery from competition or training. It is about maximizing your potential for excellent performance.
- The quantity, quality, and timing of different nutrients from foods and supplements can affect cognitive (mental) and physical preparedness for, performance of, and recovery from competition or training.

FEED THE MACHINE: Consuming enough calories that both fuel optimal performance and achieving body composition goals (increase lean body mass, decrease fat mass, or both). Skimping out on enough calories can not only hinder performance and improvements in body composition or lean body mass, but can negatively affect mental or cognitive performance such as reaction time and alertness.

CRAP FOOD = CRAP PERFORMANCE: Eat crap food; expect your body to become crap and your performance as well.

EATING WHAT/WHEN: Timing the consumption of certain nutrients like water, protein, carbohydrate, and caffeine before, during, and after training or competition can promote performance, the building of lean body mass, restoring energy in the muscles, and recovery.

**GOOD NUTRITION = STAY HEALTHY. STAY STRONG. STAY FAST. STAY LEAN. FASTER RECOVERY.
CRAP NUTRITION = GET SICK. GET INJURED. GET WEAK. GET SLOW. GET FAT. SLOW RECOVERY.**

NUTRIENT TIMING

what to do before

1-2 HOURS BEFORE GAME

- Smoothie with protein powder, fruit, milk or water, and nut butter, chia seeds, or flax seeds
- Sandwich made with turkey, roast beef, or chicken breast with lettuce, tomato, mustard
- Yogurt parfait with fruit and granola
- Quesadilla with low-fat shredded cheese, shredded, chicken, and bell peppers



PACK IN BAG FOR DURING GAME

- ½ Gatorade + ½ Water or G2
- Honey Stinger Waffles
- Nutrition Bars (granola, fruit bars) or Sports Bars (protein bars)
- Applesauce Pouches
- Honey packets
- Gummy Bears or Honey Stinger Gummies



FAST FOOD

junk food = junk performance

FAST-FOOD MAY TASTE GOOD TO SOME, BUT IT WILL LEAVE YOU EMPTY.

Though high in calories and palatability (meaning it tastes good) will leave you:



**LOW IN
FIBER**



**LOW IN
VITAMINS
AND
MINERALS**



HIGH IN FAT
leaving little room
for the performance
fuel of protein and
carbohydrates



**HIGH IN
SUGAR**



**HIGH IN
SODIUM**

- Fast food chain fries are riddled with preservatives to prevent any sort of bacterial or mold growth. In some cases these fries can last for over 3 years.
- A recent study found the average fast food consumer ingests around 12 pubic hairs a year.
- Cheese products labeled as processed are actually loaded with additives, chemicals, and flavoring that make up 49% of the product. Half the product isn't even cheese.
- One patty from a burger can contain meat from up to 30 different cattle.
- The ground beef at a certain fast food chain is actually only 36% meat.
- Silicon dioxide (aka sand) is used as an anti-caking agent in multiple fast-food items like Buffalo wings and chili. The sand helps it to be able to stay in a heater for days.
- About 50% of fast food drink dispensers have fecal bacteria on them.
- What makes your burger flame grilled? Definitely not an actual grill, but more like marks pre-branded or painted with dyes plus smoke and char flavorings added to complete the illusion.
- McDonald's hamburgers don't rot. The burgers have a low moisture content, which basically leaves the meat dehydrated. It's more like jerky than burger.
- Colonel Sanders, after leaving KFC, described the food as "the worst fried chicken I've ever seen" and said the gravy was like "wallpaper paste."
- Large fries at Five Guy's are the most unhealthy fries in America. Nearly 1,500 calories and 71 grams of fat.
- "All Natural Flavoring" can't be too bad right? Think again. Vanilla and berry shakes, available on many fast food chain menus, contains an additional ingredient – castoreum – which adds sweetness and comes from the anal gland of beavers.

How to

MAXIMIZE

performance hydration

HYDRATION IS **ESSENTIAL** FOR OPTIMAL PERFORMANCE!

JUST A 1-2% LOSS IN WATER HAS A **NEGATIVE** EFFECT ON:



MENTAL
ACUITY



REACTION
TIME



DECISION
MAKING



MUSCLE
STRENGTH



COORDINATION



ENDURANCE

BESIDES WATER, WHERE CAN YOU GET FLUIDS?



HYDRATION TIMING



PRE-EXERCISE

2-3 HOURS BEFORE: 16-20 OUNCES
15 MINUTES BEFORE: 8 OUNCES

DURING EXERCISE

INDIVIDUALIZED TO YOUR SWEAT RATE
AS A GUIDE: 4 OUNCES EVERY 15-20 MINUTES

POST-EXERCISE

16-20 OUNCES OF FLUID FOR EVERY POUND LOST

EXERCISE MORE THAN 1 HOUR

LARGE GULPS OF A SPORTS DRINK EVERY 15-20 MINUTES

SALTY SWEATER?

LARGE GULPS OF A SPORTS DRINK EVERY 15-20 MINUTES AND HAVE A SALTY SNACK OR ADD SALT.

SODIUM FROM SALT HELPS RETAIN FLUIDS, STIMULATES THIRST, AND REPLACES THE SODIUM YOU LOST IN SWEAT.

PROTEIN TYPES

and timing

ANIMAL VS PLANT PROTEINS

ANIMAL PROTEINS

are those proteins sourced from animals or animal products (dairy or eggs), and

PLANT PROTEINS

are those made from plants like legumes (beans and peas) and grains. Pretty intuitive.

SO WHAT'S THE DIFFERENCE?

IT LIES IN THE AMINO ACID PROFILE. Amino acids are the building blocks of proteins, and the quality of protein is based on the number and quantity of the essential amino acids. Essential amino acids are those amino acids that cannot be synthesized or made by the body - there are nine: phenylalanine, valine, threonine, tryptophan, methionine, leucine, isoleucine, lysine, and histidine.

ANIMAL PROTEINS typically contain a good balance of all amino acids and in decent quality; these proteins also contain all the essential amino acids - making them "complete" proteins. Some plant proteins often lack or are low in certain amino acids and often do not contain all the essential amino acids, making them "incomplete" proteins. However, there are a couple of exceptions. Soy and quinoa contain all the essential amino acids.

ANIMAL PROTEINS HAVE A HIGHER BIOLOGICAL VALUE THAN PLANT PROTEINS.

Biological value measures the amount of protein that is absorbed and used by the body. **A GOOD RULE OF THUMB:** for every gram of animal protein, you would need to consume 1.5 grams of plant protein.

CONCENTRATE

VS

ISOLATE

The resulting product contains 70-85% pure protein with the remaining 15-30% consisting of carbohydrate and fat.

Takes it a step further with the resulting product containing up to 95% pure protein.

These terms are often seen on supplement/nutrition facts label under ingredients.

WHEY

VS

Whey and casein are both dairy proteins. Whey protein has shown to promote lean muscle growth. Whey is quickly absorbed and rapidly appears in the blood stream – ready for use. Whey is best used post-training or competition for optimizing recovery by quickly making protein available for the muscle to rebuild and repair with.

CASEIN

Casein protein is absorbed and appears in the bloodstream slower than whey protein. Casein is best used before bedtime to maximize recovery during sleep.

**ASK ABOUT OTHER GREAT OPTIONS FOR PROTEIN
SUCH AS EGG, RICE, HEMP, SOY, AND PEA PROTEINS!**

CREATINE

NATURALLY OCCURRING IN THE HUMAN MUSCLE

IT CAN BE CONSUMED IN TWO WAYS:



1. DIET

FOUND IN RED MEAT, POULTRY, AND FISH. MACKEREL, A TYPE OF FISH, CONTAINS THE HIGHEST AMOUNT OF CREATINE PER GRAM.



2. SUPPLEMENTATION

CREATINE IS A COMPONENT OF THE PHOSPHOCREATINE SYSTEM (ATP-PCR), WHICH PROVIDES ENERGY FOR ACTIVITIES THAT LAST 4-10 SECONDS – SUCH AS EXPLOSIVE MOVEMENTS.

SUPPLEMENTATION WITH CREATINE CAN INCREASE YOUR BODY'S NATURAL STORES AND IMPROVE ATHLETIC PERFORMANCE.

BENEFITS OF CREATINE SUPPLEMENTATION:



INCREASE
MUSCLE
STRENGTH
AND SIZE



IMPROVE
SPRINT
PERFORMANCE



HYDRATION



ENHANCE
RECOVERY



INCREASE
WORK
CAPACITY



THERMAL
REGULATION

HOW TO TAKE:

LOADING PROTOCOL OR LOW DOSE PROTOCOL
(BOTH HAVE THE SAME RESULTS)

LOADING: 15-25 GRAMS PER DAY FOR 5-7 DAYS
& 3-5 GRAMS PER DAY TO MAINTAIN

LOW DOSE: 3-5 GRAMS PER DAY DURING TRAINING

CYCLING PROTOCOL: TAKE CREATINE DURING TRAINING &
REDUCE/ABSTAIN BETWEEN TRAINING PERIODS

CREATINE MONOHYDRATE

THE MOST RESEARCHED AND EFFECTIVE FORM
OF CREATINE FOR PERFORMANCE AND BODY
COMPOSITION IMPROVEMENTS.

MICRONIZED CREATINE

CREATINE MONOHYDRATE CUT OR DIVIDED
MAKES IT EASIER TO ABSORB & LESSENS ANY
POTENTIAL STOMACH DISCOMFORT OR BLOATING.

RECOVERY

nutrition

RECOVERY PHASE



GO FROM BREAKING
DOWN (DURING TRAINING)
TO BUILD, BUILD, BUILD



INCREASE BLOOD FLOW
AND DECREASE SORENESS



REPAIR MUSCLES AND
PROMOTE GROWTH



REDUCE DAMAGE TO
MUSCLE AND BOOST
THE IMMUNE SYSTEM

- MAXIMIZE REFUELING AND REBUILDING YOUR MUSCLES.
- HAVE CARBOHYDRATES AND PROTEIN WITHIN 30 MINUTES OF YOUR GAME OR TRAINING.
- AIM FOR A 2:1 RATIO OF CARBOHYDRATES TO PROTEIN.
FOR EVERY 2 GRAMS OF CARBOHYDRATES, HAVE 1 GRAM OF PROTEIN

WHAT DOES 2 CARBS TO 1 PROTEIN LOOK LIKE?



1 CUP GREEK YOGURT,
½ CUP KASHI GO LEAN
CEREAL, 1 CUP BERRIES,
8 PECAN HALVES



1 ENGLISH MUFFIN,
2 HARD-BOILED
EGGS, ¼ AVOCADO,
24 CHERRIES



2 SCOOPS WHEY
PROTEIN ISOLATE,
1 BANANA,
1 CUP BERRIES



16 OUNCES
CHOCOLATE
MILK



PEANUT BUTTER &
JELLY SANDWICH ON
WHOLE WHEAT BREAD

3 R'S OF RECOVERY

REFUEL. REPAIR. REHYDRATE.

REFUEL WITH QUALITY AND FAST ACTING CARBOHYDRATES.

REPAIR WITH LEAN PROTEINS.

REHYDRATE WITH FLUIDS.

SLEEP

SLEEP IS A STRATEGY THAT CONTRIBUTES TO BOTH COGNITIVE & PHYSICAL RECOVERY. IT IS ALSO IMPORTANT IN AVOIDING OVERTRAINING.

SLEEP LOSS LEADS TO:



POOR
PERFORMANCE



REDUCED
MOTIVATION



REDUCED
COGNITIVE
PROCESSES



POOR
ATTENTION AND
CONCENTRATION

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SLEEP PROVIDES AN OPPORTUNITY FOR THE BODY TO **RECOVER AND PREPARE** FOR THE NEXT DAY. GENERAL RECOMMENDATIONS PROPOSE **7-9 HOURS OF SLEEP**, HOWEVER, SOME SUGGEST ATHLETES MAY NEED MORE TO RECOVER FROM INJURY, INTENSE TRAINING, AND COMPETITION.

SLEEP STRATEGIES



KEEP A REGULAR SLEEP SCHEDULE

GET IN SYNC WITH YOUR BODY'S NATURAL SLEEP-WAKE CYCLE. YOU SHOULD **FALL ASLEEP WITHIN 20-30 MINUTES OF LYING DOWN** AND WAKEUP **WITHOUT AN ALARM**. SET A **REGULAR BEDTIME** AND WAKE-UP AT THE **SAME TIME EVERY DAY**.



GET IN THE TIME

GET AT LEAST **7-9 HOURS OF SLEEP** EACH NIGHT.



HAVE A BEDTIME ROUTINE

KEEP YOUR ROOM DARK BY **TURNING OFF ALL LIGHTS AND DEVICES** THAT EMIT LIGHT LIKE YOUR TELEVISION, TABLETS, AND CELL PHONE. **KEEP NOISE DOWN** AND MAINTAIN A **COMFORTABLE TEMPERATURE** IN YOUR ROOM (18° CELSIUS; 65° FAHRENHEIT).



EAT AND DRINK CORRECTLY

STAY AWAY FROM BIG MEALS AT NIGHT. **CUT DOWN** ON CAFFEINE. **AVOID** DRINKING TOO MANY LIQUIDS IN THE EVENING, AND **AVOID** DRINKING ALCOHOL.



GET ANXIETY AND STRESS IN CHECK

CLOSE YOUR EYES AND TRY TAKING **DEEP, SLOW BREATHS**.

HOW MUCH SLEEP?

1. Determine the amount of time in sleep it takes to feel fully refreshed and rested in the morning.
2. Onset of sleep, or when you begin to fall asleep, should be between 20-30 minutes.
3. Offset, or when you wake up, should be spontaneous.

COMBATING JET LAG

- Jet lag is experienced after rapid travel across at least 2 time zones. Symptoms such as insomnia and excessive daytime sleepiness, and is associated with impaired daytime function and general fatigue.
- For every time zone crossed, it takes 1 day for your body to adjust.
- Travel direction can affect the severity of jet lag symptoms. Traveling eastward disrupts more so than travel westward. Why is that? Traveling eastward shortens the length of the day and your circadian system must shorten to reestablish a normal rhythm.

PRE-DEPARTURE STRATEGIES

1. Eat according to destination time zone.
2. Consuming a high-protein breakfast will promote wakefulness in the morning and a high-carbohydrate dinner will promote sleepiness in the evening.
3. Shift your sleep schedule 1-2 hours toward the destination time zone in the days preceding departure may shorten the duration of jet lag.
4. Napping can aid in adjusting to time zone changes.

HEALTHY FATS

and Omega-3s

SO HERE IT IS IN A NUTSHELL – THERE ARE DIFFERENT TYPES OF FATS IN NATURE, AND THOSE THAT ARE MAN-MADE, THAT CAN BENEFIT AND THOSE, THAT IF EATEN OR OVEREATEN, CAN CAUSE HARM TO HOW YOUR BODY PERFORMS, RECOVERS, AND BASICALLY FUNCTIONS.

**THERE ARE 3 MAJOR CATEGORIES OF DIFFERENT TYPES OF FATS;
HOWEVER, ALL FOODS CONTAIN A MIX OF THESE TYPES OF FAT.**



UNSATURATED FATS

There are two types of unsaturated fats: mono- and polyunsaturated fats. Unsaturated fats are liquid at room temperature and are considered beneficial fats as they can benefit heart health and fight inflammation.



MONOUNSATURATED FATS

olive, peanut, and canola oils; avocados, almonds, hazelnuts, and pecans; pumpkin and sesame seeds.



POLYUNSATURATED FATS

sunflower, corn, soybean, and flaxseed oils; walnuts; flax seeds; fish; canola oil – though higher in monounsaturated fat, it's also a good source of polyunsaturated fats.

OMEGA-3 FATS, a polyunsaturated fat, are essential fatty acids. Essential fats are those that the body cannot make on its own and must be obtained from food or supplements. Omega-3s reduce inflammation, maintain a healthy heart, and reduce muscle soreness.

SOURCES OF OMEGA-3S: SALMON, SARDINES, MACKEREL, HERRING, AND TUNA; FLAX SEEDS; CHIA SEEDS; WALNUTS; AND OMEGA-3 ENRICHED EGGS.



SATURATED FATS are found mainly in animal foods, but a few plants are also high in saturated fats such as coconut, coconut oil, and palm oil.

FOODS HIGH IN SATURATED FAT INCLUDE: PIZZA AND CHEESE; WHOLE AND REDUCED FAT MILK, BUTTER, AND ICE CREAM; SAUSAGE, BACON, BEEF, HAMBURGERS; COOKIES; FAST FOOD ITEMS.



Recent research has found that saturated fat is not as harmful as we once thought; however, if you replace saturated fat with unsaturated fats can be beneficial for health and performance.

TRANS FATS are man-made fats meant for frying, baked goods, processed foods, and margarine. Trans fats raise LDL and lower HDL, create inflammation, contribute to insulin resistance (can lead to diabetes), and increase risk for disease.

In 2015, the Food and Drug Administration (FDA) banned artificial trans fat in the food supply and is recommended that trans fats be eliminated from the diet.

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WHY ARE OMEGA-3 FATS BETTER OR PREFERRED OVER OMEGA-6 FATS?

1. Our body cannot make omega-3 fats so we **NEED** to eat foods that contain them.
2. **OMEGA-3 FATS** are **ANTI**-Inflammatory and can promote recovery and health.
3. **OMEGA-6 FATS** are **PRO**-Inflammatory.

INFLAMMATION

WHAT IS INFLAMMATION?

INFLAMMATION IS YOUR BODY'S IMMUNE SYSTEM RESPONSE TO ANYTHING IT MIGHT RECOGNIZE AS "FOREIGN" – BACTERIA OR A VIRUS, CHEMICAL OR POLLEN, WHEN YOU ARE INJURED OR SICK YOU MAY EXPERIENCE CLOTTING, BRUISING, REDNESS, SWELLING, OR PAIN. THIS IS ALL YOUR IMMUNE SYSTEM'S RESPONSE TO PROTECT OR HEAL YOUR BODY.

EVEN EXERCISE. ACUTELY, OR IMMEDIATELY DURING AND AFTER TRAINING, YOUR BODY EXPERIENCES INFLAMMATION AS IT ATTEMPTS TO REPAIR AND REBUILD YOUR MUSCLES.

HOWEVER, CHRONIC AND PERSISTENT INFLAMMATION, INFLAMMATION EXPERIENCED DAY-IN AND DAY-OUT, **CAN CAUSE FATIGUE, IMPAIR THE RECOVERY PROCESS, DAMAGE MUSCLE TISSUE AND LIMIT ITS GROWTH,** AND INCREASE YOUR LIKELIHOOD OF INJURY.

WAYS TO REDUCE INFLAMMATION



INCREASE OMEGA-3 FATTY ACIDS

A. FOODS HIGH IN OMEGA-3S: SALMON, TUNA, MACKEREL, HERRING, WALNUTS, FLAXSEEDS, CHIA SEEDS

B. HOW MUCH?
2,000-3,000 GRAMS/DAY



SELECT FOODS HIGH IN ANTIOXIDANTS

A. FOODS FIRST: CONSUMING A WIDE VARIETY OF DIFFERENT COLORED FRUITS AND VEGGIES CAN DECREASE OXIDATIVE STRESS IN THE BODY.

B. FOODS HIGH IN VITAMIN C, E, AND A: BERRIES, BROCCOLI, CARROTS, CITRUS FRUITS, DARK LEAFY GREENS, NUTS/SEEDS, PEPPERS, SWEET POTATOES, SQUASH, AND TOMATOES



PROTEIN

A. PROTEIN PROVIDES THE BUILDING BLOCKS OF YOUR BODY BY SUPPORTING IMMUNE CELLS AND REBUILDING AND REPAIRING MUSCLES.

B. HOW MUCH?
RECOMMENDED BETWEEN 20-30 GRAMS OF HIGH-QUALITY PROTEIN AFTER TRAINING.



OPTIMIZE VITAMIN D

A. MANY ATHLETES ARE DEFICIENT DUE TO DIFFICULTY IN GETTING ENOUGH VITAMIN D THROUGH FOODS AND LIMITED EXPOSURE TO THE SUN. YOUR BODY MAKES VITAMIN D IN RESPONSE TO SUNLIGHT.

B. FOODS HIGH IN VITAMIN D: FATTY FISH, EGG YOLKS, FORTIFIED DAIRY PRODUCTS

C. RECOMMEND: 2000-5000 IU VITAMIN D PER DAY VIA SUPPLEMENTATION WITH D3



DRINK UP DURING TRAINING

A. CONSUME FLUIDS AND ELECTROLYTES TO PREVENT DEHYDRATION.



TRY NITRIC OXIDE & NITRATE BOOSTERS

A. NITRIC OXIDE INCREASES BLOOD FLOW, WHICH INCREASES THE DELIVERY OF OXYGEN AND NUTRIENTS. THIS MAY REDUCE INFLAMMATION AND ENHANCE RECOVERY.

B. FOODS THAT PROMOTE BLOOD FLOW: LEAFY GREENS, POMEGRANATE, BEETS



SEASON WITH HERBS & SPICES

A. CONTAINS VARIOUS ANTIOXIDANTS, MINERALS, AND VITAMINS.

B. TRY TURMERIC, GARLIC, CINNAMON, GINGER, ROSEMARY



TRY TART CHERRY JUICE

A. SHOWN TO REDUCE MUSCLE FATIGUE AND SORENESS AND PROMOTE RECOVERY

B. HIGH IN ANTHOCYANINS – ANTIOXIDANT FOUND IN PURPLE AND RED FRUITS AND VEGETABLES

TOBACCO

TOBACCO'S EFFECT ON RECOVERY



SMOKELESS TOBACCO IS HAZARDOUS TO YOUR HEALTH AND **CAN LEAD TO NICOTINE ADDICTION.**



THERE ARE AT LEAST **28 CANCER-CAUSING CHEMICALS** IN SMOKELESS TOBACCO.



HOW DO YOU EXPECT YOUR BODY TO RECOVER WHEN YOU ARE USING SOMETHING THAT CAN **POTENTIALLY KILL YOU?**

NICOTINE DELAYS RECOVERY



CAUSES AN **INCREASE IN HEART RATE** AND **CONSTRICTION OF BLOOD VESSELS**. THIS MAKES IT DIFFICULT FOR THE BODY TO DELIVER OXYGEN AND NUTRIENTS TO THE WORKING MUSCLES AND FOR REBUILDING, REPAIRING, AND REFUELING AFTER TRAINING OR COMPETITION.

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PULLS CALCIUM OUT OF THE BONES MAKING THEM WEAK AND DELAYS HEALING OF BONE FRACTURES.

.....

INCREASES YOUR RISK FOR OSTEOARTHRITIS (FLEXIBLE PART OF THE BONE) AND **RHEUMATOID ARTHRITIS** (INFLAMMATION OF THE JOINTS) CAUSING CHRONIC PAIN.

ALCOHOL

IMPACT ON SPORT PERFORMANCE AND RECOVERY

FAT BURNING
SUPPRESSOR



ALCOHOL **SUPPRESSES**
YOUR BODY'S ABILITY
TO BURN FAT.

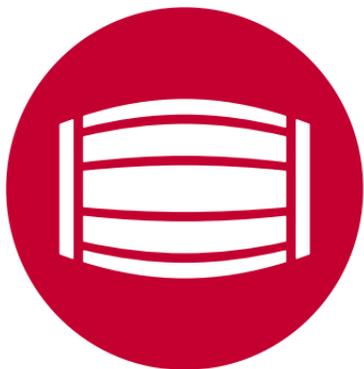
SMASHES
YOUR GAINS



ALCOHOL **DECREASES** YOUR BODY'S
ABILITY TO BUILD NEW MUSCLE.

.....
ALCOHOL CAN **INCREASE THE SEVERITY OF**
AN INJURY AND **NEGATIVELY IMPACT THE**
RATE AND OUTCOME OF RECOVERY.

HOW MUCH AND WHAT YOU DRINK CAN MAKE THE DIFFERENCE



DRINKING BEYOND WHAT
IS RECOMMENDED CAN
**DELAY RECOVERY AND
NEGATIVELY AFFECT
PERFORMANCE.**

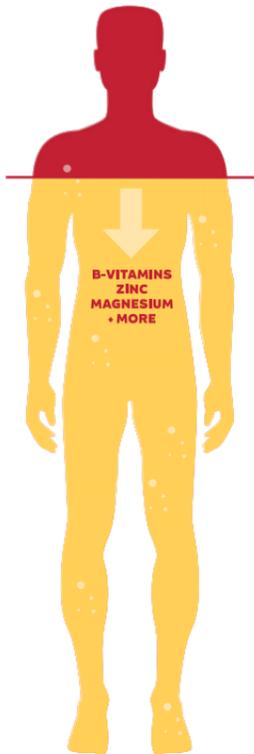
NO MORE THAN 2-3 DRINKS.

NUTRITION STRATEGIES WHEN DRINKING

1



IF YOU CHOOSE TO DRINK, HAVE A MEAL WHEN DRINKING TO "LINE YOUR STOMACH." CHOOSE A **LEAN PROTEIN WITH VEGETABLES** TO MINIMIZE NEGATIVE EFFECTS ON BODY COMPOSITION.



2



DO NOT
HAVE MORE THAN
2-3 DRINKS.

3

ALCOHOL CAN DRAIN YOUR BODY'S STORES OF NUTRIENTS. **TAKE A MULTI-VITAMIN AND MINERAL** TO SUPPLEMENT ANY LOSSES.

4



FOR **EVERY ALCOHOLIC BEVERAGE** CONSUMED HAVE **1-2 GLASSES OF WATER** TO HELP WITH HYDRATION.

WHAT TO DO THE MORNING AFTER



HYDRATE: Drink water liberally and add in Gatorade, Pedialyte, or Coconut Water for any electrolytes lost.



EAT: Eating a good breakfast can help restore energy levels and replace lost nutrients.



POTASSIUM: Bananas, dried apricots, and tomato juice can replenish potassium stores.



VITAMIN C: Another vitamin depleted by alcohol. Try orange juice or tomato juice.



EGGS: Over-easy or in an omelet, eggs contain cysteine, which breaks down acetaldehyde – the cause of hangovers.

PROBIOTICS

PROBIOTICS ARE THE LIVE, FRIENDLY BACTERIA OR BUGS IN FOODS THAT CAN SUPPORT YOUR HEALTH AND PERFORMANCE. **SOURCES INCLUDE:**



YOGURT



KEFIR



SAUERKRAUT



KIMCHI



MISO SOUP



KOMBUCHA

PROBIOTICS CAN BENEFIT YOUR HEALTH AND PERFORMANCE BY:

Supporting a healthy immune system & enhancing recovery from fatigue

Balancing & maintaining normal levels of inflammation

Enhance availability & absorption of key vitamins & minerals from foods

Potential role in proper brain development & cognitive function

PREBIOTICS

PREBIOTICS ARE FOODS THAT CONTAIN NON-DIGESTIBLE COMPONENTS THAT FUEL AND PROMOTE THE GROWTH OF HELPFUL BACTERIA IN YOUR GUT. **SOURCES INCLUDE:**



BANANAS



ONIONS/GARLIC



ASPARAGUS



ARTICHOKES



SOYBEANS



WHOLE WHEAT

THINKING OF USING A PROBIOTIC SUPPLEMENT?

ASK YOUR DIETITIAN WHAT PROBIOTIC SUPPLEMENT WOULD WORK BEST FOR YOU AS...

- Each strain of bacteria has different benefits. Effectiveness depends on the strain and dose.
- A probiotic should contain several billion Colony Forming Units (CFU) to increase likelihood of adequate gut colonization.
- More is not better; amount needed depends on the strain.

Note: some people experience negative side effects such as gas and bloating when consuming foods high in prebiotics. Monitor your reactions when consuming these types of foods to ensure it doesn't interfere with play and to take a probiotic or consuming probiotic containing foods when increasing your intake of prebiotic-containing foods.

VITAMINS + MINERALS

FOOD FIRST, SUPPLEMENT SECOND: even with the best nutrition habits, we may fall short of what we need nutritionally. Use of multiple vitamin and mineral (Multivitamin or MVI) supplements can act as our “Cheap Insurance Policy” in making up where we don’t get the job done with food.

VITAMIN	FOOD SOURCES	HOW IT AFFECTS PERFORMANCE
A	Sweet potatoes, carrots, butternut squash, kale, spinach, mango	Role in vision, growth, and immune function
B	Cereals, beans, seeds, nuts, green leafy vegetables, dairy products, eggs, meats	Role in energy production
C	Citrus fruits, strawberries, sweet peppers, tomatoes, broccoli, potatoes	Protection from infection and role in tendon and ligament production. Also protects against bruising. Aids in the absorption of iron and folate
D	Sunlight, fortified milk and cereals, cod-liver oil, seafood (fatty fish), eggs	Role in bone health, muscle growth, testosterone production, enhanced recovery, and immune function
E	Sunflower seeds, almonds, spinach	Antioxidant (fights inflammation and damage to cells/muscle) and immune function
K	Dark green leafy veggies, broccoli, brussels sprouts, asparagus, plant oils	Role in blood clotting and bone health

MINERAL	FOOD SOURCES	HOW IT AFFECTS PERFORMANCE
CALCIUM	Dairy, broccoli, kale, collard greens, fortified orange juice & cereals	Role in bone density and strength, and muscle contraction. Deficiencies can lead to muscle cramps and stress fractures.
POTASSIUM	Orange juice, bananas, beans, dark leafy green vegetables, sweet potatoes, potatoes, soybeans, squash, bell peppers	Electrolyte - maintains fluid balance and conducting electricity in the body.
SODIUM	Naturally occurring in foods such as beets and milk; packaged & prepared foods like canned soups, lunch meats, and frozen dinners	Electrolyte - maintain fluid balance.
IRON	Meat, poultry, fish, iron-fortified cereals, spinach, raisins, apricots, baked potatoes	Transport oxygen to muscles and other tissues. Combine with Vitamin C for better use by the body.
MAGNESIUM	Dark leafy green vegetables, pumpkin seeds, soybeans, quinoa, cashews, sunflower seeds	Role in energy production, bone health. Electrolyte involved in muscle contractions.
ZINC	Oysters, red meat, poultry, beans, nuts, whole grains, fortified cereals	Healing and immune function and energy production. Deficiency leads to increased risk of injury and delay in the recovery process.
PHOSPHORUS	Dairy, scallops, cod, pumpkin seeds, tuna, salmon, poultry, beef, oats, broccoli, spinach, asparagus	Role in every cell in the body, bone health, and energy production

NUTRIENTS WORK BETTER AS A TEAM

NUTRIENTS WORK TOGETHER LIKE A TEAM. Just as it's more effective to play baseball with a whole team rather than one player, nutrients work more efficiently when they are matched up with the right teammates. We call these nutrient-nutrient interactions.



IRON, COPPER, & ZINC

Iron exists as heme and non-heme. Heme-iron is 2-3 times more effectively absorbed than non-heme iron. Copper and Zinc are very similar to iron and are all similarly absorbed. If all were to be taken at the same time, it is likely that some of these minerals may be left out unabsorbed. It is recommended that neither of these be taken in large doses at the same time.

IRON, CALCIUM, & MAGNESIUM

Magnesium may decrease non-heme iron absorption if taken together. Calcium may decrease non-heme iron absorption when both are consumed at the same time. It is recommended, if you are deficient, to separate your intake of calcium and iron. Oxalic acid, in spinach, beets, celery, pecans, peanuts, tea and cocoa, can bind to calcium and prevent its absorption.

IRON & VITAMINS C AND A

Vitamin C is suggested to enhance non-heme iron absorption when both nutrients are eaten together. Vitamin A – beta-carotene, specifically – also appears to enhance iron absorption and levels in those that are deficient. Adequate intake of dietary fat and zinc is necessary for the use of vitamin A.

VITAMIN D

Deficiency in vitamin D can impact the absorption and storage (in bones, teeth, and tissue) of calcium and phosphorus.