Practical Nutrition Methods for the Collegiate Athlete

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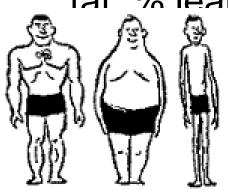
Eastern Michigan University

Experience

- Certified Specialist in Performance Nutrition (ISSA)
- B.S. and M.S. in Exercise Science
- Basic responsibilities of a S/C coach
 - "Provide guidance regarding nutrition and injury prevention" (NSCA)
 - Focus on the underrated and overlooked components of a sound performance nutrition program

Approach

- K.I.S.S. Principle
- It's our job to do the dirty work!
 - Somatotypes, positional needs
 - Relative to bodyweight requirements, % body fat % lean mass calories







Approach

ABSORB

- Research recommendations
- Internet "gurus"
- Supplement company claims

MODIFY

- College budgets (scholarship)
- Compliance (NCAA)

APPLY

Independent, cheap, college student lifestyles





Principles

PrecisionNutrition

(John Berardi)

1) Eat every 2-3 hours

Blood sugar, metabolism, (gas tank analogy)

2) Eat lean protein with each meal

Thermic effect of feeding (20-30%), feeling of fullness

3) Eat a fruit or veggie with each meal

Acid/base balance, vitamins/minerals, CHO's

4) Utilize carbohydrate timing

- Manage insulin, body composition, enhance recovery
- Endzone (muscles), Football (fuel), RB (insulin)

Principles

Precision Nutrition

(John Berardi)

5) Cut out calorie containing beverages

Low nutritional value, extra calories (note: window)

6) Eat healthy fats daily

Feeling of fullness, inflammation, hormone production

7) Prepare food ahead of time

On the run, meetings, class, time management

8) Cheat 10% of time

10 point grade scale, 100% results requires 90% effort

Plan of Attack

- Progressive Dietary Changes
 - Too much change causes frustration
- #1 failure in diets is lack of compliance
- Diets vs. lifestyles
- What is our ultimate goal?



Categories of Attack

Compromise

- Fast food, overall food choices, grocery sales

Influence

Kitchen set-up, groceries, food logs, hydration

Direct Change

Training table, supplement distribution

Continuing Education

Department newsletter

Fast Food

(Compromise)

- Convenience of college life
- Right on campus!
- Stop being naïve!
- Help them (and yourself) make better choices at the drive-thru





















Fast Food

Criteria

- 1) Lower calorie (<500)
- 2) 1:1-2:1 ratio of carbohydrate: protein
- 3) Limited fat (enhance recovery)
- 4) Lower values of sodium (processed meat)
- 5) Practicality of eating/ordering

Fast Food



FAST- FOOD RECOMMENDATIONS

McDonald's

BURGERS



- 9 grams of fat, 31 grams of carbs, 12 grams of protein Cheeseburger
- 12 grams of fat, 33 grams of carbs, 15 grams of protein McDouble
- 19 grams of fat, 33 grams of carbs, 22 grams of protein 1/4 Pounder
- 19 grams of fat, 37 grams of carbs, 24 grams of protein Big N' Tasty
- 24 grams of fat, 37 grams of carbs, 24 grams of protein

. CHICKEN SANDWICHES

Any GRILLED Snack Wrap

- 10 grams of fat, 27 grams of carbs, 18 grams of protein Premium Grilled Chicken Classic Sandwich
 10 grams of fat, 51 grams of carbs, 32 grams of protein
- Premium Grilled Chicken Club Sandwich

 20 grams of fat. 59 grams of carbs, 28 grams of protein
- 20 grams of fat, 59 grams of carbs, 26 grams of protein
 Premium Grilled Chicken Ranch Sandwich
 12 grams of fat, 54 grams of carbs, 36 grams of protein
- McChicken
 16 grams of fat, 40 grams of carbs, 14 grams of protein

BREAKFAST ITEMS

Egg McMuffin

- 12 grams of fat, 30 grams of carbs, 18 grams of protein 2 order of scrambled eggs
- 22 grams of fat, 2 grams of carbs, 30 grams of protein Saus age Burrito
- 16 grams of fat, 26 grams of carbs, 12 grams of protein

· SALADS

Any of the Premium Salads with GRILLED Chicken

. Under 10 grams of fat, 30-40 grams of carbs, 30 grams of protein



You're better off ordering Chicken Nuggets instead of the Chicken Selects!

> Choose hot mustard, spicy buffalo or langy honey mustare for sauces!

Drink low-fat chocolate or regular milk instead of ordering

> Choose Low-fat Italian, Greamy Southwest or Low fat Balsamic salad

FAST- FOOD RECOMMENDATIONS



McDonald's

BREAKFAST

- Egg McMuffin
- · 2 orders of scrambled eggs
- Sausage Burrito

BURGERS

- Hamburger
- Cheeseburger
- McDouble
- 1/4 Pounder
- . Big N' Tasty

CHICKEN SANDWICHES

- · Any grilled Snack Wrap
- · Grilled Classic or Club Sandwich
- McChicken



Burger King

BREAKFAST

- . BK Breakfast Shots
- · Ham Omelet Sandwich
- · Croissan wich

BURGERS

- BK Burger Shots
- Hamburger
- Cheeseburger
- JR Whopper
- Double Hamburger

CHICKEN SANDWICHES

- Spicy Chicken Crisp
- Tender Grill Chicken



Arby's

BREAKFAST

- Egg and Cheese Sourdough
- . Ham and Cheese Croissant
- . Ham, Egg and Cheese Croissant

SANDWICHES

- Ham and Swiss Melt
- Arby's Melt
- Regular Roast Beef
- All American Roast Burger
- . Bacon Cheddar Roast Burger

CHICKEN SANDWICHES

- Chicken Bacon Ranch and Swiss Roast
- Chicken Fillet Roast
- Roast Chicken Club



Wendy's

BURGERS

- JR Burger
- JR Cheeseburger
- JR Cheeseburger Deluxe
- · Double Stack
- Single with everything

CHICKEN SANDWICHES

- Ultimate Chicken Grill
- . Home-style Chicken Fillet or Spicy Chicken Fillet
- ANY Chicken GO Wrap

SALADS

- Chicken Caesar
- · Mandarin Chicken (add almonds and dressing)

TIPS

Small chocolate Frostus, add a baked notato with chili

Food Choice Selections

- Red, yellow, green light foods
- Wheat/white
- Natural/processed
- Extra lean/chuck





Food Choice Selections FOOD CATEGORIES



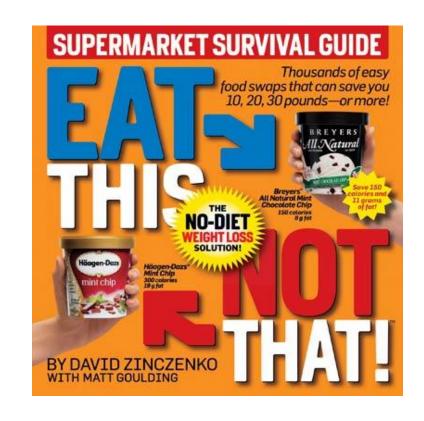




	ALL-AMERICAN	ALL-LEAGUE	SCOUT TEAM Limit as much as possible.	
Category	Try to include as many ingredients and items as possible.	Use as an alternative if BEST items are unavailable.		
Breads	Whole-grain/100% Whole-wheat items including: Breads, Bagels, Tortillas, English Muffins, Pitas, etc.	Wheat bread items; enriched bread or starches May appear to be wheat bread (look at label)	White breads, baked goods such as croissants, biscuits, danishes, breadsticks and dinner rolls	
Cereals	High fiber, whole-grain cereals including Kashi, Oatmeal, All-Bran, Whole-grain Cheerios,etc	<u>Fortified</u> cereals including Total, Corn Flakes, Raisin Bran or granola based mixes	Cartoon character cereals, Cinnamon Toast Crunch, Apple Jacks, Lucky Charms, etc.	
Pasta/Rice	Whole-grain/100% Whole-wheat pasta, Barilla plus spaghetti, rotini, ziti, etc.	White rice, regular spaghetti and pasta, egg and rice noodles	Pre-made pasta dishes including Hamburger Helper, Rice-a-Roni, and other pre-bagged/mixed pasta	
Fruits	Fresh fruits including berries, apples, peaches, oranges, pears, plums, and tangerines	Fresh or frozen fruits including bananas, raisins, grapes, watermelon, cherries, pineapple, and mango	Canned fruits in syrup, fruit juice from concentrate, fruit cups and sauces	
Vegetables	Fresh veggies including broccoli, spinach, peppers, onions, mushrooms, green beans, and tomatoes	Frozen or canned vegetables, white potatoes, corn, iceberg lettuce	Vegetables covered in sauces, cheeses, butters and oils	
Beans	Frozen, dried, or canned beans or lentils including kidney, black, pinto, chickpeas and black beans	Canned baked beans, refried beans	High-fat refried beans, items processed with high fat, sugar, and salt	
Nuts/Seeds	1 oz servings of raw, unsalted walnuts, almonds, cashews, flax, hemp, or sunflower seeds	1 oz servings of raw or dry roasted peanuts, pecans, macadamia, pistachios, pine or brazil nuts	Honey-roasted, salted, or pre-mixed nuts	
Dairy	Skim milk, low-fat/reduced fat yogurts and cheeses (Mozzarella and Parmesan)	1% or 2% milk, 2% milk made cheeses and yogurts (Feta, Swiss)	Whole milk, half and half, processed cheeses (American/Cheddar)	
Meat	>92% Extra-LEAN cuts of steak, ground beef, pork and lamb (Top Round, Sirloin, Filets, Chuck Roasts)	>85% LEAN cuts of steaks, ground beef, pork and lamb	Heavily marbled cuts, fried/breaded cuts, pork ribs, hot dogs, bacon/sausage, deli hams/roasts	
Poultry	>92% LEAN ground turkey and chicken	>85% LEAN cuts of ground turkey and chicken lean deli turkey/chicken meats, turkey bacon/sausage	Fried chicken, chicken/turkey with skin	
Eggs	Omega-3 Whole Eggs, egg whites and substitutes	Regular, whole-eggs	Eggs fried with butter or loaded with processed cheeses and meats	
Fish/Shellfish	Fresh steamed, grilled, or baked salmon, trout, herring, tuna, haddock, swordfish, catfish, etc	Frozen cuts of shell/fish, tuna in oil, fish with cream based sauces	Fried or breaded fish/shrimp, fish sticks, fish casseroles	
Oils/Dressings	Fish, olive, canola, sun/safflower/vegetable oil, vinegar, oil based salad dressings, coconut oil	Smart-balance spread, low-fat salad dressings, light mayonnaise/sour cream/cream cheese	Margarine, Palm Kernel Oil, Sour cream/cheese, dips, creamy salad dressings, heavy gravy, cream	

Grocery Sales

- Off-campus housing, dorm room snacks
- How far can \$5.01 go?
- Make the swap!



Grocery Sales GROCERY SALES

KROGER

Sales good Sunday through Saturday
Fruits and Vegetables

Fruits and Vegetables					
•	White Seedless Grapes	\$1.28 per lb Put in			
•	Stokely's Can Veggies	69 cents per can			
•	Tropicana Orange Juice	\$2.39 per carton			
•	Welch's Grape Juice	\$2.99 each Est with			
•	Cantaloupe	2 for \$3 or early			
•	Organic Bananas	68 cents per lb.			
•	Raw veggie packs	2 for \$4 slice and			
•	Tomatoes	\$1.68 per pack put with oatmaal			
•	Washington State Apples	.98 cents per lb			
Meat					
•	Tyson Chicken Breast	\$1.99 per lb			
•	Angus Chuck Roast	\$2.99 per lb			
•	Catfish fillets	\$2.99 per lb 90% or			
•	Laura's Lean Beef	25% off Image more			
•	StarKist Tuna	2 for \$3			
Dairy and Eggs					
•2	Kraft Cheese	3 for \$5 Mix with peanut			
•	Kroger Gallon Milks	\$1.99 each shigh			
•	Cottage Cheese	10 for \$10 protein snack			
•	18 count large eggs	\$1.59 each			
Breads, Pastas and other food items					
•	Kroger Wheat Bread	S1.19 each Use with healthy			
•	Quaker Oatmeal Squares	1.50 each burritos for extra			
•	Fat-free refried beans	10 for \$10			
•	Healthy Choice Meal Mixers	2 for \$5			

3 for \$5

Kroger Peanuts

Kitchen Set-up

(Influence)

- Sometimes we ask too much
- Distribution of cookbooks, recipes, newsletters...for what?
- Take a look in your athlete's kitchen...
- Did <u>YOU</u> cook while playing a college sport?
- Do they have the tools to SUCCEED?

Kitchen Set-up KITCHEN SET-UP SHEET



In order to follow your healthy habits of nutrition, you must have the tools to succeed. Listed below are the basic items needed to set-up your own kitchen (whether in a dormitory or off-campus housing). You can pick up all these items at your local Dollar Tree ® and Wal-mart ®. Look in the sales flyers during the back to school months (July-September) for great deals on start-up kitchen sets. The entire set below includes everything you need to make your own performance nutrition recipes for around \$100. Enhancing your athletic performance not only takes place in the weight room and field, but also your kitchen!



Cooking Items and Measuring Devices Bowls, Baking Sheets, and Food Prep Other Kitchen Items Spatula Noodle/Veggie Strainer Pot/Pan/Utensil Set . Best deal for a kitchen! Look fo Use for flipping burgers, making Use to drain boiled/steamed omelets, or stir-frying veggies. veggies or for your healthy back to school specials. Includes large/small pot, large/small pan pasta dishes (whole wheat). and cooking utensils Price: Spoon Large/Small Mixing Bowl George Foreman Grill ·Use for mixing items, stirring ·Use to mix all of your ingredient ·Use to grill all of your meats in together before adding them to your dorm room or kitchen. It sauces and serving food. takes 5-10 minutes to grill your the final recipe. favorite dishes. Season and grill Price: \$18.88 \$1.00 each Liquid Measuring Cup 9x13 Baking Pan Blender Use to bake meatloaf, lasagnas · Grab a blender to make protein ·Use to make sure all of your shakes with fruit, milk, peanut liquid ingredients (water, oils and and casseroles in your oven. milk) are accurately measured. butter and your Muscle Milk packets. Use ice for a smoothie. \$13.84 3-Piece Baking Sheets Dry Measuring Cups Ziploc Bags ·Use to make sure all of your dr Great for baking chicken, fish o · Pack your left-overs and snack steak in the oven. Cover with in plastic bags. Buy snack bags ingredients (powders, flours and spices) are accurately measured aluminum foil to prevent more for nuts and veggies, larger bags dishes in the sink. to marinade meat and storage. \$1.00 each Price: Can Opener **Cutting Board** Tupperware Use for all canned goods. Buy Buy 2 (one for fruits and veggis . Bring your food to go. Buy a canned veggies, beans and sauand another one for cutting meat deluxe package with small, med. in bulk and save for later use and large plastic containers to bring your food on the run. \$1.00 \$1.00 Fruit/Potato Peeler 3-Piece Knife Set Aluminum Foil · Peel potatoes, fruit and veggies Spend the extra few dollars for . Top your cooking sheets with f a knife set. It will make cutting to keep the dishes out of the sin! for salads and snacks. Allegreschitz Mitrop and slicing meat, fruit and veggie Wrap your veggies in foil and pur much easier and safer. them on the grill to cook. Price: \$1.00 \$8.00 \$1.00

Grocery List

- What does their budget allow?
- Break the cycle of buying certain items
- Perimeter vs. aisle shopping
- Do they know what items look like?
 - Chicken breast?
 - Olive oil?
 - Healthy Snacks?

Grocery List SAMPLE GROCERY LIST

Vegetables and Fruit	Breads, Starches, Pastas	Other Food Items
2 bags of pre-washed spinach Use instead of iceberg lettuce for salads Thirow into omelets or sandwiches	1 loaf of whole-grain bread • Try whole-wheat English mulfins, tortillas and bagels as well	1 jar of natural peanut butter • Great source of protein and good fals 1 jar of sugar-free or 100% fruit spread
3 green peppers, 2 cucumbers - Slice and store for salads or snacks Salt/pepper them and drizole cilive cili	1 box of old-fashioned oatmeal • Nicrowave and use cinnamon and syrup instead of Frosted Flakes and Rice Krispies.	1 bottle of sugar-free or light syrup - Use spreads and swups for break/ast without extra sugar/ 1 bottle of extra virgin olive oil
3 large tomatoes • Slice for sandviches or omelets. • Dice them and mix with pepperstonions for your own home-made salsa.	2 boxes of whole-grain pasta • BEST choice for pasta dishes. Extra protein and good fats! Use spaghetti sauce or Smart Balance spread.	Use instead of butter for cocking Use to make home made salad dressings 1 container of Smart
5 apples - Slice and spread peanut butter on them for snacks. - Eting an apple or two with you for the day. 1 bunch of bananas	Meat and Dairy 2 libs of lean ground beef Try to buy at least 32% lean beef. Use for hamburgers, spaghetti sauce or	Balance Spread * Best choice instead of regular butter or margarine. 1 bag of mixed nuts * Perfect for snacks during the day.
Slice and put into gatmeal in the morning. Use as snacks before practice. 5 bags of frozen mixed vegetat	homemade healthy Hamburger Helper. 2 containers of boneless chicken breast • Cut all visible fat off. Season and throw	Try to eat at least I-2 small handfuls per day. 2 containers of hummus Helps make your veggles taste better.
EASIEST way to get your veggies Nicrowave and eat! Try all different varieties 1 bag of mini-carrots Pack into a Ziyloc bag for snacks with	coto your George Foreman Grill for under IO minutes for a great source of protein. 3 pouches of salmon or tuna • Easiest, most portable way to get quality protein in Less than \$2 per bag!	Use for dipping with carrots or other slices veggles. Good combo with nuts Tips This entire list costs around \$80. It will become cheaper every week as you learn how fast you will
hummus or peanut butter. 2 bunches of broccoli Steam or boil and use parmesan cheese on top instead of processed cheese sauce.	1.5 dozen eggs For your big breakfasts to start your day. One of the best forms of whole protein in the groceru store.	go through meals. Buying everything at the start always costs more. Remember, you won't be buying oatmeal, fruit, oils and spreads every week! Some of the items you buy will last you weeks. A basic, but complete grocery bill will cost you
2 stalks of celery • Cut into 4" pieces and use with peanut butter. Add raisins to make sweeter.	1 bag of low-fat mozzarella cheese Lise on top of salads, burgers, and eggs instead of processed American or Cheddar.	around \$50-65 per week. ► With U-club and supplements from the weight room, food will only cost you ~\$8-10 a day! No excuses! ► Look for sales in the flyers posted in the locker room
1 head of cauliflower - Steam and mash. Use instead of white potatoes for a "mashed potatoes dish". - Add gatlic and smart balance for flavor	1/2 gallon of milk • whole-milk if need to gain weight. Skim milk if you need to lose weight. 2 containers of low-fat cottage cheese • Great for snacks with peanut butter or fruit.	2/\$4 or 3/\$5 are usually great deals so take advantage of when the foods are on sale. Buy fresh, frozen, then canned fruits and vegetables. Try different types so you don't get bored. Buy larger amounts of meat when it's on sale and freeze any extras for future meals.

Food Logs

- 4-days (2 weekdays, 2 weekends)
- Understand WHAT, WHY, WHEN AND HOW!

PDC's

- Learn to switch around "10% foods" instead of solely removing them
- Start with small issues (timing, frequency, fluids)
- Don't change too much at once

Food Logs

Thursday

- 7:40- Gatorade and Muscle Milk
- 10:15- 2 McD's sausage biscuits, Tootsie rolls
- 3:00- Tootsie rolls
- 7:30- 2 Rally's burgers, large fry, 2 Gatorades
- 12:00- Gatorade

Sunday

- 2:00- 2 bowls of cereal, apple juice, donut
- 3:00-3 soft tacos, water
- 8:30- King size Snickers, Gatorade

Hydration

 How many ounces was that again?

 What color is it supposed to be?

Why am I cramping?



GATORADE



Hydration

HYDRATION GUIDELINES

Failure to re-hydrate before the next training session/practice will result in decreased strength/power/endurance and increase the risk of fatigue, cramping, and INJURY. Take advantage of the supplements provided. Carry a bottle with you at all times!

Weight Loss	INJURY. Take advantage of the supplements Fluid Replacement		
8	20 ounces = 2/3 Bottle		120 ounces = 4 Bottles
One (1) pound		Six (6) pounds	and the state
Two (2) pounds	40 ounces = 1 1/3 Bottles 60 ounces = 2 Bottles	Seven (7) pounds	140 ounces = 4 2/3 Bottles 160 ounces = 5 1/3 Bottles
Three (3) pounds	80 ounces = 2 2/3 Bottles	Eight (8) pounds	180 ounces = 6 Bottles
Four (4) pounds	100 ounces = 3 1/3 Bottles	Nine (9) pounds	200 ounces = 6 2/3 Bottles
Five (5) pounds	age age	Ten (10) pounds	

Training Table

(Direct Change)

- Cater to everyone (Variety is the KEY)
- Don't make it TOO healthy
- Make it:
 - Practical
 - Enjoyable
 - Sociable
- Periodize around training





Training Table Menu

Monday

(Lift)

- Burritos/ChickenParm
- Vegetable Medley
- Steamed Carrots
- Brown/White Rice
- Sliced Roast Beef

Tuesday

(AM run)

- MarinatedChickenBreast
- Baked Salmon
- Broccoli/Green
 Beans
- Sweet PotatoStrips
- Vegetable
 Beef Soup

Thursday

(Pre-trip)

- Roasted
 Chicken with
 pasta (red
 sauce)
- Grilled
 Squash/Zucch
 ini
- Sliced fruit
- 10% items by request

Supplement Program

Goals:

- 1) Utilize nutrient timing and enhance recovery
- 2) Provide additional calories (when appropriate)
- 3) Regulate meal frequency (work, meetings, study hall)
- 4) Insurance Policy!

Supplement Program

















Continuing Education

BEAT



ARMY

SPORTS PERFORMANCE

SUMMER 2010

WEEK 3



Grilled Chicken Salad

VS.

6-piece chicken basket

Get the chicken salad! 300 calories vs. 1200!

11g fat vs. 70g fat!
Small Chocolate Sundae

VS.

Small Cookie Dough Blizzard

Over 500 calories less and half the fat of the traditional blizzard

Numbron Notes

Goal of Week 3: Eat a fruit or vegetable every time you eat

You all know how important fruits and veggies are for you! Fruits and veggies supply energy that don't give you a sugar "crash" and leave you feeling tired and worn out. **Did you know that high intakes of meat and bread can prevent you from building muscle and keep you feeling sore longer?** Decrease your soreness, build more muscle, and lose more fat by eating 1 piece of fruit or 1/2 cup cooked or 1 cup raw veggies every time you eat to balance your diet out!

HOW TO MAKE IT WORK FOR YOU

- Add berries or sliced bananas to your cereal in the morning
- Grab fresh fruit instead of a bag of potato chips
- Pack snack bags of raw veggies and eat with nuts or cheese for snacks
- Double up on the veggies instead of getting extra mashed potatoes/rolls



ONE-CUP

- 1 apple
- 1 pear
 2 plums
- 2 piums
 8 strawberries
- 1 large pepper
- 2 celery stalks
- 2 cups raw spinach

HALF-CUP

- 6 baby carrots
- 16 grapes

SAMPLE PORTIONS

- 1 small banana
- 1 small box raisins
- 1 wedge cantaloupe
- 5 pieces of broccoli
- 10 cherry tomatoes

Restaurant



- Keep these in mind when ordering:
 Sizzle and Spice Tilapla over the
- Ctrus Fire Shrimp and Chicken Fajitas
 Grab the steak/chicken fajitas and eat as a stir-fry instead of using the tortillas
- Use the Guiltless Grill for healthier options (Black Bean Burger, Carne Asada Steak, Salmon and Tilapia)
- Add quacamole to meals for healthy fats

Grocery Tr

No money? How to buy on a budget!

Scholarship check a little bit less than usual this month? No problem. You can still try and eat a little bit healthier than usual by following these few tips the next time you need to eat:

- CHECK THE GROCERY FLYERS IN THE WEIGHT ROOM AND LOCKER ROOM. Look for the deals!
- Buy fruit and veggies about to expire.
 Chances are they are much cheaper.
- Buy canned food items instead of fresh foods. They will last longer and are often cheaper.
- · Save your left overs as snacks instead of throwing them out.

Regre of the Week

Quick Chili

- 1 lb extra lean beef (>90%)
- 1/2 onion chopped
- 1 yellow or red pepper cut into squares
- 1 can kidney beans
- 1 cup spicy hot V8 juice
- 1 packet chili seasoning
- 1/2 cup cashews (crushed in blender)
- Pan fry the beef and onions together on high heat until cooked.
- Add the peppers and beans and continue to stir.
- Add V8 juice, cashews and seasoning and bring to a boil.
- Reduce heat to simmer, Add extra cashews to thicken.



Thank You



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