

DIET FOR KHO KHO PLAYERS

Dr. Dhadphale G. B., M.D. (Hom)
Convener – Medical Committee



Kho-Kho is a game with various requirements like explosive power, speed, agility, strength and recovery speed. All these factors are heavily influenced by what players eat during training and tournaments. Food is fuel and if players fuel their bodies right; it will keep them at the optimum level for playing Kho-Kho. While players need diets to maintain good nutrition, they do need to know what works best. Here some tips on what to eat to make them a better kho-Kho player.

What do Kho-Kho players should eat and drink?

- Eat every 3-4 hours, no matter what.
 Players should eat between 5-8 meals per day.
- Eat complete lean protein with each meal.
- Eat fruits and/or vegetables with each food meal.
- Ensure that carbohydrate intake comes from fruits and vegetables
- Ensure that appx. 30-40% of energy intake comes from fat, with fat intake split equally between saturates (8%) (e.g. animal fat), mono unsaturates (10%) (e.g., olive oil), and polyunsaturates (12%) (e.g. flax oil, salmon oil).
- Drink only non-calorie containing beverages, the best choices being water and green tea.
- Eat mostly whole foods.

Kho-Kho is a sport based on strength & agility through, sprinting, checking, diving. That means one can't waste time building up endurance through fitness training only. However, you do need endurance and fast recovery to perform at your best to the last minute. Player can achieve this through what he eat & drink before, during and after the game.

What should be the ideal Kho-Kho performance drink?

- Contains water for hydration.
- Be able to sit in the sunshine and not go off.
- Contain fast acting carbohydrates (7%-8%)
 for recovery and endurance.
- Taste good or you won't drink it.
- Contain fast acting protein for recovery, retention of power and performance enhancement.

For Hydration -

- Take 200 ml water 20 mins before game
- Sip 50-100ml water every 10-20 mins during game
- Take 2-glass (1-glass is 250 ml) of water after match.
- Most notably, get your carbohydrates from fruit and vegetables, fat from fish, eggs, nuts and olive oil and lean protein from meat, dairy, protein shakes or fish.
- About 2 hours before the match have a meal as below but add in some processed carbohydrates like cereal, bread or pasta to top up your glycogen stores. Avoid 'bad' fats from processed meat and fried food.
- After the game, cool down and refuel with a whole food meal within 2-3 hours of the close of play.

Bear in mind all these tips are for optimum nutrition to give you more energy during play rather than minimal requirements to avoid starvation. If you ignore them and still eat the way you want, just be prepared to perform less well towards the end of the game. Good nutrition is that important to your game.

What should Kho-Kho players eat during tournament (Match) days -

- Cottage Cheese. A great source of protein. It can be used in a variety of ways. Better eat it before bed because it contains a type of protein called casein that is released more slowly through the night.
- Mixed Nuts. Nuts taste dead good and are a source of healthy fat. Most like them because you can snack on them easily, but there are plenty of ways to cook them up as part of a proper meal too.
- **Spinach**. Strengthens your immune system. Have it in omelets to get a good balance of veggies and complete protein in one meal.
- **Tuna**. Fresh tuna is rich in protein and good omega-3 fats. Tinned tuna is a tasty convenient protein source. Players need a bit more protein than the average person and tuna is an excellent way to get it.
- **Broccoli**. Rich in antioxidants, if you want to feel good broccoli is high in the list of foods to eat. Fresh is best but frozen isn't that far behind, just make sure you steam it so as not to lose too many micro-nutrients in the cooking.
- **Bananas**. Energy and potassium in one easy to munch yellow snack. If one gets hungry on the day of a match and is in a pinch he should grab a banana rather than a cake or sandwich.
- Green Tea. It's not a food, but it's a wonder drink. It has been claimed to boost metabolism in those wanting to lose weight, have positive effects on prevention and treatment of cancer and lower cholesterol. Although that has not been proven beyond doubt, what is certain is its benefit when replacing coffee, and soft drinks. It's got no calories and less caffeine.

Nutritional aims - Ideally our diet should be like this - 40%-50% Carbohydrate, 20-25% Fat and 20-25% Protein.

This breakdown will give sufficient fuel to perform without putting on performance reducing fat. Also, players should be aiming for around 10-15% Body Fat (25% for women), about 2500-3500 calories per day and enough vitamins and minerals to stay healthy.

How to reach nutrition goals -

Reaching these aims without the help of complicated labs and expensive equipment is possible by straight forward eating right food at right times and the percentages will follow automatically. Here are some tips -

- Get most of your protein from high quality lean meats like chicken and fish.
- Make sure you eat 5-10 portions of veg. a day (plus some fruit) to get your vitamins and minerals.
- Cut back on processed and high sugar foods.
- Don't cut any food out of your diet, especially if you like it. Just make it a treat or a reward.

After the match is a good time to get whole starchy carbohydrates to assist your recovery time. Potatoes, quinoa or rice combined with a protein source from lean meat works perfectly. It's fine to consume some fatty foods provided the fats are not trans-fats. These foods will help you to stay warmer in cold weather, whilst avoiding discomfort during play. Again, look for whole foods that combine 'healthy' fats with other nutrients. Nuts, avocado, olives, hummus and fresh fish are solid options.

Cucumber sandwiches are popular during matches and weekend picnics. The Indian variant is flavored with green chutney, and sometimes contains slices of boiled potatoes. Because of cucumber's cooling nature, cucumber sandwiches are often eaten in the summer months or in warmer climates. Eating these foods (Sausage rolls, pies, scones, biscuits, chips, crisps, cakes, chocolate) in the middle of a game will adversely affect performance. This is because such foods release energy too quickly, converting to fat and causing your blood sugar to crash.

Daily Diet during Tournaments -

Upon rising in the morning: 1-teaspoon Methi + Kala Jeera (Black Cumin) with lemon water

After 30 mins:- Make a juice of following, filter and then drink

 1-carrot+1-Tomato+1-cucumber+1-Beetroot+25-gm Coriander Leaf+25-Mint

Leaves

Breakfast:-

- 2-3 piece wheat bread with 5gm-Butter / 60-70g Oatmeal
- 1-Glass Orange juice or apple juice or 1 Orange/Apple
- 25gm-Nuts60-70gm Papaya
- 40-50gm Soybean Powder/ Cornflake
- Banana
- 1-2 Eggs

After 2-3 Hours

- Sandwich with Vegetables
- 1-Glass skimmed milk/Watermelon
- Few Raisins, Almonds

Lunch:

- 3-4 Chapattis
- 60gm Brown Rice
- 25gm Lentils
- Boiled beans, peas
- Cucumber and Leafy vegetables Salad, Yoghurt, with Olive Oil(10-15ml)
- 100gm Fish/100g Lean Chicken

Evening

- Grapes/Apple/ different fruits with Bread (preferably Wheat),
 Suji
- 1-2 Eggs or Boiled Chicken Breast or
- Chatua-soyabean, cashews, chana, groundnut, corn (For Vegetarians)

Dinner:

- 1-2 Chapattis
- 70-80gm Rice
- 25gm-Dals
- Few Vegetables
- Fish/Chicken(100g)
- Orange or Grapes or Juice or 1-Glass Skimmed milk

Almond or Turmeric or Powdered Pumpkin Seeds and Watermelon seeds after 30-mins of dinner and then sleep after 30 Min.

Supplements are only used to supplement whole food. If one is not taking proper whole food then supplements will not help them or may be dangerous.

 Vitamin C supplements or whole food like citrus fruits (oranges, lemon, pineapple), dark leafy greens, kiwifruit, broccoli, berries, tomatoes, peas and papayas.

- Zinc supplements or foods like- Leafy vegetables, Yoghurt, almonds, pumpkin seeds, nuts, Sunflower seeds, Oysters, red meat and poultry products, beans, whole grains, fortified breakfast cereals, and dairy products.
- Copper supplements or foods Oysters, Mushrooms, Sesame seeds, Cashew nuts, Chickpeas, Apricot, Goat cheese.
- Iron supplements or foods Green leafy vegetables such as amaranth (chauli), bengal gram leaves, cauliflower greens, turnip leaves (shalgam ka sag), mint leaves (pudina), and radish leaves (mooli patta), Red meat, Pork, Poultry, Seafood, Beans, Dark green leafy vegetables, such as spinach, Dried fruit, such as raisins and apricots.
- Vitamin A related supplements or foods -Sweet potatoes, carrots, dark leafy greens, winter squashes, lettuce, dried apricots, bell peppers, fish, liver, and tropical fruits. Vitamin A is a fat soluble vitamin, and therefore, needs to be consumed with fat in order to have optimal absorption.
- Calcium supplements or foods Almond, Soy, Beans, Dairy products, peas, fish, orange, meat, Brocolli.
- Chromium supplements or foods like -Broccoli, Cauliflower, Whole grains, Bread, Brown rice, Meat, Mushrooms, Green beans, Chicken, liver, Cereals, Cheese, Eggs, Fish, Sea food, Corn, Potatoes, Diary products, and Fresh vegetables.
- Selenium supplements or foods like mushrooms, Brazil nuts, sea food, whole wheat, sunflower seeds, chicken.
- Vitamin E supplements or foods Tofu, spinach, almonds, fish, olive oil, pumpkin.

Before / During the Game -

During the game carbohydrates and its compounds are useful.

If food containing simple carbohydrates are eaten 2-3 hours before the game, energy in blood is increased in short time and it leads to uneasiness in the tissues up to the game and is finished during the game only and the player feels tired. If food containing carbohydrate compounds are eaten 1-2 hours before the game, energy in blood is increased slowly and

reaches to its peak after 2-3 hours. This does not lead to uneasiness in the tissues before the game and lot of energy is available during the game. Compound carbohydrates can be obtained from chapatti (Wheat), corn, nachani, grains with covering, rice (Hatsadicha), jwari, bajari, varai, etc.

If players eat more fats in their diet, stamina is reduced. If fat content in muscles increase above 12% they fatigue earlier. If fat is used to generate energy then many unwanted & unhealthy substances are produced which are not easily thrown out of body. This affects the elasticity of muscles. Hence players should eat fewer fats. Almonds, apricots, cashews (Kaju), Til, Ground nuts, Olive oil, Karale, Jawas, etc. contain unsaturated fats. Coconut, oil, ghee contain saturated fats. Cake, Mayonnaise,

muffins, etc.; contain unhealthy fats called 'Trans fats' which produce bad effects on blood vessels & muscles.

Players should include good quality fats in their diet when there are no competitions. Players should avoid chocolates, biscuits, cold drinks during competitions. Chocolate gives temporary energy for one time finishes very early. If player feel exhausted or weak during competition or match then he may take some chocolate or sweet. But Sharabat, fruit juice, mangola, lassi, fruit, pulpy orange, orange, sweet lemons, grapes, watermelon, etc. are more beneficial. They do not produce any trouble after the game. Those players who eat biscuits, bread, chocolate, vada-pav, Chinese food, etc. suffer from illness after the tournament.

Weekly Diet during practice / training / throughout year – Chart –

१०-१६ वर्षांच्या वयोगटातील मुलांचे साप्ताहिक आहारनियोजन शनिवार रविवार मंगळवार बुधवार गुरूवार वेळ सोमवार शुक्रवार १ कप दूध १ कप दूध १ कप द्ध १ कप द्ध १ कप दूध सकाळी ७ १ कप द्ध १ कप द्ध १ च. नाचणी-२ च. शतावरी १ सुके अंजीर ३ खजूर २ च. शतावरी २ च. सुंठ+ २ बदाम कल्प +साळीच्या लाह्य -कल्प हळद कल्प २-३ इडली-चटणी १ वाटी शिरा २ मूग डोसे/ १ बशी उपमा १ थालीपीठ पोहे १ बशी पराठा सकाळी धिरडे + दलिया शिरा/सांजा पालक/मेथी + लोणी 6-8 + लिंबू लोणचे नारळाची चटणी २ मेथी पराठे १ वाटी १ वाटी १ वाटी १ वाटी १ वाटी दुपारचे १ वाटी + रायते आमटीभात आमटीभात आमटीभात आमटीभात जेवण आमटीभात वरणभात (दुधी/लाल चवळी २ फुलके + मसूर २ पोळ्या +भाजी आमसूल युक्त मुग २ पोळ्या+भाजी-भाकरी १-२ फुलके २ भोपळा) भाजी-पडवळ पोळ्या २+ वांगे-बटाटा भाजी-भेंडी २ पोळ्या फ्लॉवर-बटाटा भाजी-द्धी, लोणी+ गाजर कोशिंबीर काकडी कोबी कोशिंबीर + चिकन/मटण चटणी, आले लिंबू भाजी-तोंडली चटणी कोशिंबीर ताक टोमॅटो कोशिंबीर कोशिंबीर कोबी/ बीट कोशिंबीर लोणचे जवस चटणी गाजर/काकडी वाफवून मोड साळीच्या लाह्यांचा सफरचंद १/ द्ध/ताक अंजिरसिद्ध कोकम सरबत आवळा सरबत धान्ये/सूप द्राक्षे/चिक् २ १ कप चिवडा द्ध/ताक १ ग्लास १ ग्लास १ कप सैंधव-मिरे द्ध १ कप ब्रेड/टोस्ट पपई राजगिरा लाडू डाळींब/पपई साळीच्या लाह्यांचा द.8−4 १-२ लोणी १/२ वाटी १/२ वाटी चिवडा 9-2 टोमॅटो-सूप कुळीथ कढण २ पोळ्या कोकम सार सर्व भाजी-सूप भाकरी १ मूग यूष १ वा. रात्री २ पोळ्या भाजी-भोपळी मिरची २ पालक परोठा भात-फुलके २ मूगखिचडी-भात 6-8 म्गडाळ घालून नारळ चटणी भाजी-दोडका भाजी-कोबी तांदूळ भाकरी १ वाटी द्धीची भाजी पापड भाजून लसूण-खोबरे साधे वरणभात १ वा. कोशिंबीर-गाजर भात-तूप-मेतकूट लिंबू लोणचे भात तूप, लिंबू लोणचे कोशिंबीर गाजर चटणी मूग पापड भाजून भाजी नेहमी १ वाटी (कोबी अर्धी वाटी)

The above diet schedule is a generalized one. Consult your nutritionist or coach and modify according to your body's requirement.

Nav Maharashtra Sangh, Pune Hon. Shri. Sharad Pawar Platinum Jubilee All India Kho-Kho Tournaments - 2015