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Role of different Juices in the Management of Osteoarthritis, Rheumatoid Arthritis and Backache - A Review

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ABSTRACT

Skeletal system is a very important system of living body. If any malformation occurs it leads to severe problems which are highly intolerable by an individual. Some of the diseases comes under this are osteoarthritis, rheumatoid arthritis, backache, etc. Management of such diseases is now based on diagnosis, but still it is complicated to treat and associated causes are difficult to find out in many cases. Mainly diet plays a major and important role in prevention of skeletal disorders, under diet regimen different combination of fruit and vegetable juices plays a vital role in management of diseases. Modification in combination of juices and knowledge of their chemical constituent helps in management of skeletal disorder. Due to deficiency of mineral, vitamin or other necessary component is find out, we can use the natural supplement in the form of juices which are rich in minerals, vitamins and get easily digest and minimize the risk of the disease and provide soothing results. Juices of spinach, broccoli, apple, parsley, cherry, blueberry, ginger root, carrot, lettuce, kale, turnip, etc. plays an important role in management of different types of skeletal disorders. By proper knowledge of chemical constituent of fruits and vegetable we may minimize the risk of diseases associated with skeletal system and helps the sufferer up to a better extent.

Key words: Skeletal system, Osteoarthritis, Rheumatoid arthritis, Backache, Juices.

INTRODUCTION

Skeletal system is the back bone of the human body. Any form of malfunctioning of joints, pain, and deformity may lead worst condition for an individual. Nowadays due to irregular habits of food, poor lifestyle, late night sitting jobs, use of alcohol, tobacco, minimum exercise, stress etc. are many

factors affecting the health and may lead in weakness of bones and joints which is resulted in severe problems. Due to changing lifestyle people are suffering from new form of lifestyle disorders.^[1] Due to these poor lifestyle and dietary habits diseases of skeletal system are more prone now days. Changing intervention in form of diet may suppress the diseases of skeletal system. Awareness about fruits and vegetables juices which are rich in minerals, vitamins will help in management of skeletal disorders. If food is healthy, nutritive, rich in vitamins, etc. life expectancy will increase and health status will also improves.^[2] Due to modernization and less availability of time, we use different types of packed food which are not healthier in any aspect as compared to natural and fresh food.

Osteoarthritis

Osteoarthritis is a form of arthritis which affects only one or a few joints at first, mostly at the joints of fingers, big toes, neck, lower back and more

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commonly at the knees. It is characterized by mild early morning stiffness, stiffness after period of rest, pain that is worse when the joint is used and loss of joint function. Symptoms can change from local tenderness, swelling of soft tissues, bony swellings and restricted mobility to cracking of joints in movement. Osteoarthritis is divided into two categories- primary and secondary. Primary osteoarthritis is a degenerative condition brought about by wear and tear on the body. Secondary osteoarthritis is brought about by predisposing factors such as trauma or previous inflammatory disease of the joint.^[3]

General Recommendations

Osteoarthritis sufferers should achieve and maintain normal body weight. Excess weight places an added strain on the weight bearing joints. For some individuals, symptoms disappear completely after weight loss.^[4]

Dietary Modifications

- Try eliminating the nightshade family - tomatoes, peppers, potatoes, egg plant and tobacco. If symptoms improve even slightly, continue to avoid these foods. Though not proven, there is a theory that a long term low level consumption of the solanum. Alkaloids found in this family inhibits normal collagens repair in the joints on encourages inflammatory degeneration of the joints.
- Avoid citrus family - lemons, limes, oranges and grape fruits. This family, like the night shades family, is thought to contribute to joint swelling.
- Avoid all refined foods such as white flour, white sugar and preserved foods. Eat a nutritious diet that emphasizes whole grains, legumes, seeds, nuts, vegetables and fruits include only a small portion of low fat animal products.
- Significantly decreases your consumption of sweets and alcohol.
- Consider testing for food allergies.
- Check for hydrochloric acid deficiency. Seek medical advice in this regard.

- Try a juice fast, which has been shown to be very helpful for arthritis.^[5]

Nutrients that help

- Niacinamide may bring a noticeable improvement within two to six weeks. This nutrient is said to be especially beneficial for degenerative arthritis of the knee.
- Pantothenic acid may be helpful, as a deficiency of this nutrient has been associated with osteoarthritis.
- Vitamin C may be beneficial.
- Vitamin E may produce effects similar to those of nonsteroidal anti- inflammatory drugs.
- Methionine is important in cartilage structures.
- Bioflavonoids have been shown to be beneficial.
- Bromelain has anti-inflammatory properties.^[6]

Beneficial Juices

- Broccoli and kale - source of pantothenic acid.
- Kale, parsley and spinach - source of vitamin C.
- Spinach and carrot - source of vitamin E.
- Carrot, ginger root and apple - source of copper.
- Cherry and blueberry - source of bioflavonoids.
- Pineapple - the only source of bromelain.

Suggested Juice Recipes

- Digestive special - spinach and carrots.
- Broccoli - garlic special - broccoli, garlic, carrot, celery, powder pepper.
- Blueberry - grape special – blueberries, grapes, ginger root, little amount of water.
- Pineapple - ginger special - pineapple, ginger root slice, carrots, apple.^[7]

Rheumatoid Arthritis

Rheumatoid arthritis is a systemic disease characterized by inflammatory changes in joints and related structures. Its symptoms include fatigue, low grade fever, weakness, joint stiffness and pain. There is often severe joint pain, with increased inflammation beginning in small joints and progressively affecting all joints in the body. Evidence exists that rheumatoid

arthritis is an auto immune reaction in which antibodies develop against components of joint tissues.^[8]

Dietary Modifications

- Consume a low fat, low-calorie diet excluding most animal sources (meat, dairy products and so forth). Studies have shown that patients following this type of diet experienced remission of joint symptoms. A vegetarian diet, excluding all animal sources but fish, has been found to be very beneficial.
- Increase your consumption of cold-water fish, e.g. mackerel, salmon tuna and sardines. Cod liver oil may also be beneficial.
- Exclude refined sugar, refined wheat flour, corn flour, excessive salt, strong spices, alcohol, tea and coffee from your diet.
- Identify food allergies.
- Check for low stomach acid (hydrochloric acid).
- One folk remedy calls for drinking basil as a tea cures rheumatoid arthritis.
- Try a juice fast, which has been shown to help arthritis.^[9]

Nutrients that help

- Vitamin C has anti-inflammatory action.
- Vitamin E has anti-inflammatory action.
- Vitamin may stabilize the membranes and cell of rheumatoid tissue.
- Pantothenic acid may be helpful, as deficiencies of this nutrient have been found to be directly related to symptoms.
- Copper has anti-inflammatory action.
- Iron may be helpful, as an iron deficiency may be involved. (Supplementation is controversial only food sources).
- Manganese may have therapeutic benefits.
- Selenium may be helpful, as a deficiency may be involved.
- Sulphur may be helpful, as a deficiency may be involved.

- Zinc may be helpful, as a deficiency may be involved.
- Bromelain has anti-inflammatory properties.
- Omega-3 fatty acids have therapeutic benefits.
- Superoxide dismutase has anti-inflammatory properties.^[10]

Beneficial Juices

- Parsley, broccoli and spinach - source of vitamin C.
- Spinach, carrot and tomato - source of vitamin E.
- Broccoli, lettuce and cabbage - source of vitamin K.
- Broccoli and kale - source of pantothenic acid.
- Carrot, ginger root and apple - source of copper.
- Parsley, beet greens and broccoli - source of iron.
- Spinach, beet greens, carrot, turnip - source of manganese.
- Ginger root, parsley and carrot - source of selenium.
- Cabbage and kale - source of sulphur.
- Ginger root, parsley, garlic and carrot - source of zinc.
- Pineapple - source of bromelain.
- Dark green vegetables—source of omega-3 fatty acids.^[11]

Suggested Juice Recipes

- Spinach-carrot special – spinach, carrot, apple.
- Garden salad special – broccoli, carrots, stalk celery, garlic.
- Ginger-carrot special – slice ginger root, carrots, apple.
- Pineapple special – pineapple, apple, slice ginger root.
- Ginger-berry special – blueberries, grapes, slice ginger root, water.
- Potassium broth – parsley, spinach, carrots, stalk celery.

- Cleansing cocktail – slice ginger root, beetroot, apple, carrot.^[12]

Backache

- Backache is a common syndrome characterized by pain and tenderness in the muscles attachment to other regions, such as the sacroiliac. Back pain is a signal that something is wrong in the body. It can be caused by infection, disorders of the vertebral column, or a number of other conditions, including stress. Back pain is a sign to take action and seek professional medical advice. There are some things you can do in addition to help the healing process. Pain in the low back can be a result of conditions affecting the bony lumbar spine, discs between the vertebrae, ligaments around the spine and discs, spinal cord and nerves, muscles of the low back, internal organs of the pelvis and abdomen, and the skin covering the lumbar area. Back pain can have many underlying reasons, but often no specific cause will be found and the pain will stop. Low back pain is second only to the common cold as a cause of lost days at work. It is also one of the most common reasons to visit a doctor's.^[13]

General Recommendations

From a psychological standpoint, much can be done to help control back pain. For example, focusing, relaxation methods and back exercises can all be very helpful. In addition, physical therapy, massage and acupuncture have provided therapeutic benefits. Diet may not have much influence on how one perceives back pain, but it can be very important in the healing process.^[14]

Dietary modifications

- Reduce your consumption of animal fats. Decreasing the intake of these fats, you will decrease your intake of arachidonic acid, which contributes to the inflammatory process.
- Avoid instant coffee. A study has shown that instant coffee blocks certain receptor sites in the brain that naturally help the body control pain. When these receptor sites are blocked, the body is more susceptible to pain.^[15]

Nutrients that help

- Vitamin K has shown some promising results in pain management in studies not yet published.
- Copper deficiency can contribute to pain perception.
- D-phenylalanine, an amino acid, may effectively ease chronic pain even when medications offer no relief.^[16]

Beneficial Juices

- Turnip greens, broccoli, lettuce, cabbage and spinach - source of Vitamin K.
- Carrot, garlic and ginger root - source of copper.^[17]

Suggested Juice Recipes

- Vegetable-apple special - lettuce leaves, wedge cabbage, carrots, broccoli flowerets, apple
- Ginger-carrot special - slice ginger root, carrots, apple.
- Ginger-apple special - slice ginger root, apple.
- Potassium special - parsley, spinach, carrots, stalks celery.
- Digestive special - spinach, carrot.^[18]

CONCLUSION

This is to conclude that in osteoarthritis effect of citrus family fruits and vegetables, tobacco, white sugar, preserved and processed food, sweets, alcohol contribute in worsen the condition. Juices of Broccoli, kale, parsley, spinach, carrot, ginger root, cherry, pineapple play a vital role in management of osteoarthritis. In rheumatoid arthritis refined sugar, refined wheat flour, corn flour, salt, spices, alcohol, tea, coffee, meat, dairy product worsen the condition. Juices of cabbage, lettuce, apple, turnip, dark green vegetables, parsley, kale, carrot, ginger root, broccoli etc. plays a vital role in management of rheumatoid arthritis. In backache animal fats, coffee and those foods which lead the condition of inflammation are generally avoided. Juices like lettuce, cabbage, carrot, ginger, apple, broccoli, spinach, parsley, stalk celery produces soothing effect in management of backache. In general it is concluded that healthier effect of juices

when they are used in combination and leads to improve immunity as well as provide nourishment and better health.

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