



The Preventive Potential of Dinacharya in Sports Medicine: A Comprehensive Approach

Sanas NS^{1*}, Jyothi R², Verma PA³

DOI:10.21760/jaims.10.8.25

^{1*} Nilesh Suryakant Sanas, Final Year Post Graduate Scholar, Dept of Swasthavritta, Government Ayurveda College Thiruvananthapuram, Kerala, India.

² Jyothi R, Professor, Dept of Swasthavritta, Government Ayurveda College Thiruvananthapuram, Kerala, India.

³ Preeti Achchhelal Verma, Final Year Post Graduate Scholar, Dept of Kriya Sharir, RA Podar Medical College (Ayu), Worli Mumbai, Maharashtra, India.

Sports medicine is a specialized branch of medicine that focuses on preventing, diagnosing, treating, and rehabilitating injuries sustained during sports activity and physical exercise. The main aim of it is to enhance athletic performance and prevent and treat the injuries of sports persons. As sports medicine continuously seeks new innovative ways to improve athletic health, Ayurveda offers a comprehensive strategy focusing on preventive and curative care. Ancient Ayurvedic science provides a holistic solution to day-to-day issues. The application of Ayurvedic principles particularly the principle of Dinacharya (daily regimen), to contemporary sports medicine enhances athletic performance and prevents injuries. The article reviews different Dinacharya (daily regimen) practices from Brahma Muhurta Utham (awakening with the dawn) to Snana (bathing) etc. and their potential benefits and mechanism of action for enhancing athletic health. As these daily regimen activities are simple and take less time to complete, athletes can integrate these daily routine exercises into their everyday life for positive outcomes. As daily training and workout session of athletes needs physical demands like more strength, endurance, and recovery along with sharper decisions, mental clarity, and peace like mental demands. Ayurveda's daily regimen is a scientifically proven system that has physiological and psychological advantages to foster resilience and reduce the risk associated with injuries. The given study promotes the incorporation of Ayurvedic techniques into modern sports medicine, positing a synergistic approach to optimize athlete care and performance.

Keywords: Abhyanga, Dinacharya, Nasya, Snana, Sports Medicine, Vyayama

Corresponding Author	How to Cite this Article	To Browse
Nilesh Suryakant Sanas, Final Year Post Graduate Scholar, Dept of Swasthavritta, Government Ayurveda College Thiruvananthapuram, Kerala, India. Email: drnileshsanas23@gmail.com	Sanas NS, Jyothi R, Verma PA, The Preventive Potential of Dinacharya in Sports Medicine: A Comprehensive Approach . J Ayu Int Med Sci. 2025;10(8):144-154. Available From https://jaims.in/jaims/article/view/4625/	

Manuscript Received
2025-06-13

Review Round 1
2025-06-26

Review Round 2
2025-07-03

Review Round 3
2025-07-16

Accepted
2025-07-26

Conflict of Interest
None

Funding
Nil

Ethical Approval
Not required

Plagiarism X-checker
11.34

Note



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Introduction

Sports medicine is an important area of sports science concerning the health of athletes. It may be defined as a specialized branch of medicine that focuses on the prevention, diagnosis, treatment, and rehabilitation of injuries related to sports and physical activity. It is a growing discipline that is always looking for new ways to improve athletic performance and reduce the risk of injury.[1] Sports medicine has two main objectives: first, to improve athletes' fitness; second, to heal athletes' injuries. A sportsman's level of fitness is defined as both his physical and mental capacity to withstand high levels of stress, not only his overall health. A sportsperson places a high value on their health and physical fitness, and they engage in a variety of physical activities to maintain their physical fitness. India's traditional medicinal system, *Ayurveda*, seeks to both prevention and treatment of disease. As there is no direct textual reference given for sports medicine in *Ayurveda* but to preserve and promote health and prevent diseases, the life science of *Ayurveda* emphasizes the significance of *Dinacharya* (daily regimen), *Rutucharya* (seasonal routines), *Ratricharya* (night routine), *Sadvritta* (code of conduct), *Ahara* (diet), *Rasayana* (rejuvenation therapy) and *Vajikarana*. *Ayurveda*'s comprehensive perspective and emphasis on preventive, promotive and curative treatment make it an especially promising medical strategy for athletes.[2] *Ayurveda* places a strong emphasis on personalized treatment based on each person's distinct constitution (*Prakriti*). Unlike the one-size-fits-all approach frequently observed in modern medicine. This individualized approach enables customized routine schedules, diets, and lifestyle recommendations that can enhance athletic sports performance and facilitate recovery from mild to severe injuries more successfully.[3] The *Dinacharya* (daily regimen) is the daily activities that are carried out consistently throughout the day. With an emphasis on daily routine and its ability to maximize athletic health, this article examines the preventive elements of *Ayurveda* within sports medicine. To better understand how these *Dinacharya* practices could improve sports performance and avoid injuries, we shall look at a few of them: *Brahma Muhurta Uthan* (Awakening with the dawn), *Ushapana* (Morning Elixir), *Dantadhavan* (Tooth brushing),

And *Jivhanirlekhana* (Tongue scraping), *Anjana* (Collyrium), *Nasya* (Nasal instillation), *Abhyanga* (Oil massage), *Vyayama* (Exercises), *Udwartana* (Dry powder massage), *Snana* (Bathing). By bridging the gap between conventional Ayurvedic wisdom and modern sports science, this investigation may pave the road for all-encompassing athlete care.

Aim and Objectives

To access the preventive potential of *Dinacharya* (Daily regimen) in sports medicine for peak health, improving performance and averting injuries in athletes engaged in different sport activities.

Methodology

Relevant literature is referred in *Samhitas*, *Sangraha Granthas* and contemporary literature. Literature related to the title is explored from all reliable *Ayurvedic* journals and Modern journals from internet. Conclusion has been drawn from comparison and rationale.

***Dinacharya* (Daily Routine): The Foundation of Ayurvedic Preventive Healthcare**

Ayurveda's foundational concept of daily routine emphasizes the significance of synchronizing with natural rhythms in order to preserve health and beat off illness.[4,5] *Ayurveda* mentions two categories as *Swasthavritta* and *Aturavritta*, this *Dinacharya* comes under *Swasthavritta* which provides a comprehensive framework for maximizing mental, physical, social and emotional well-being in all spheres of life, including sports. *Dinacharya* provides an organized and systematic routine that must be adhered to, from waking up in morning till going to bed. To balance the three *Doshas*- *Vata*, *Pitta*, and *Kapha* - that regulate physiological processes, this customized regimen consists of a variety of practices carried out at times.[6] It is thought that the underlying cause of sickness is an imbalance in these *Doshas*. [6] The rigorous physical and mental demands of competition and training can upset this balance for athletes, raising their risk of injury and performance deterioration.[7] *Dinacharya* helps in maintaining this balance of *Doshas*, hence preventing the disease. *Dinacharya* assists us in maintaining our circadian rhythm, or internal clock, in harmony with our body and mind.

Dinacharya enhances mental and physical well-being. As a result, we become immune to both physical and mental illnesses. It offers a proactive strategy to reduce these dangers, encouraging resilience and advancing good health.

Brahma Muhurta Uthan (Awakening with the Dawn)

The most auspicious time for rising according to *Ayurveda* is *Brahma Muhurta*. It is the 14th *Muhurta* of night; that is, 1 hour 36 minutes before sunrise. [8] A person who wants to sustain his health throughout his lifetime should wake up at *Brahma Muhurta*. When waking up, you should check signs of digestion of food from last night, such as lightness of body, clear belching, right expression of natural urges, sense of enthusiasm, etc. [9] This period is believed to be energetically potent, helping enhanced mental clarity, better physical vitality, and spiritual well-being. This corresponds with the growing perspective of sports psychology about the importance of stress reduction and preparation of the mental aspect for good athletic performance. This aligns well with the broadening perception that is developing about sports psychology. The circadian rhythms of the body could be brought within a balance that assists in maintaining the physiological equilibrium of the body by getting up during *Brahma Muhurta*. Immune and metabolic systems can be improved by this coordination. [8] Starting the day early allows athletes to maximize their productivity. The peaceful early morning hours offer a perfect environment for focus training without distractions from daily responsibilities or interruptions from electronic technology. This can lead to more effective workouts and a greater sense of accomplishment. The most probable mechanism of action is that the release of nascent oxygen in the early morning will combine immediately with hemoglobin to form oxyhemoglobin, which quickly reaches and nourishes the distant tissues. In addition, the release of serotonin called the happy hormone keeps people vigilant and actively moving, and the presence of less pollution in the morning improves concentration power of an individual. [9]

Ushapana (Morning Elixir)

Usha Jalapana, consuming 8 *Prasrta* (640ml) of water upon waking, is another essential *Dinacharya* practice. This simple act prevents various digestive disorders like *Arsha* (Hemorrhoids), *Sotha* (Oedema), *Grahani*, *Jwara* (Pyrexia),

Udara (Ascites), *Kushta* (Skin ailments), also *Medoroga* (obesity and hypercholesterolemia), urinary disorders, etc. [10] This process is thought to purify the digestive system, rehydrate the body after sleep, and activate metabolism. *Ushapana* helps eliminate "Ama," or toxic metabolic byproducts, which could accumulate due to poor digestion. [11] For athletes, this subtle hydration is essential for maintaining fluid balance, especially critical after nighttime fluid loss. Improvements in hydration, therefore, make the body fit for intense and rigorous training with enhanced energy and cognitive functions.

Dantadhavan (Tooth brushing) and Jivhanirlekhana (Tongue scraping)

The practice of *Dantadhavan* (tooth brushing) with the help of natural twigs made from medicinal flora like *Calotropis procera* (*Arka*), *Ficus benghalensis* (*Nyagrodha*), *Acacia catechu* (*Khadira*), *Pongamia pinnata* (*Karanja*), *Terminalia arjuna* (*Kakubha*) or by the application of powdered herbal substances, along with *Jivhanirlekhana* (tongue scraping) performed with thin plates made from gold, silver, copper, or tree twigs, is essential for maintaining oral hygiene, which is often overlooked in the context of athletic training. These procedures remove dirt from the oral cavity, and prevent loss of taste, bad breath, and diseases of the tongue, tooth, and oral cavity. These procedures effectively eliminate extraneous matter from the oral cavity, and mitigate the risk of gustatory impairment, halitosis, as well as ailments affecting the tongue, teeth, and overall oral health. Health-promoting benefits include improvements in the sense of taste, an experience of freshness and floating sensation, and an elimination of over-accumulation of *Kaphadosha*. The suggested action mechanism includes stimulating the sense of taste and enhancement of salivation. Increased salivation indirectly facilitates cephalic stimulation of gastric secretions; thus, improving the digestion process and increasing the threshold for basic taste perception. [12] This would therefore require good oral hygiene because the condition can bring together a dehydration situation with very heavy exertions by athletes and contribute to conditions conducive to bacteria multiplication.

Anjana (Collyrium Application)

Your vision impacts your sports performance greatly, so eye health is vitally important.

Good eye health for safety, coordination, and reaction speed is necessary for many sports. Hand-eye coordination, depth perception, peripheral vision, dynamic visual acuity, and contrast sensitivity are all critical visual skills for sports. *Anjana* is a *Dinacharya* practice that pertains to eye health as medicated eye drops or ointments are instilled. According to *Ayurveda*, the *Anjana* by *Sauviranjana* has to be performed daily because it is nourishing and soft; *Rasanjana* has to be done once every five or eight days because it is irritative, cleansing, and scraping.[13] An applicator that is made from gold, copper, and iron should be used for applying this *Anjana* because they have actions of soothing and nourishing, scraping, and healing respectively. This process prevents the accumulation of morbid materials that cause burning and irritation in the visual system. When a healthy person practices *Anjana* regularly, their vision improves and their endurance against excessive wind and sunlight is strengthened which ultimately beneficial for on-field athletes. *Anjana* reduces the symptoms of eye strain that athletes often experience from long hours of screen time, travel, and intense visual focus during practice or competition. The proposed mode of action involves eyelid and conjunctival irritation to improve local blood circulation; this will be handy in improving the medications' bioavailability and potency (active principle). Mucosal cutaneous junction-induced sustained drug release activity. Also because of the conjunctiva's reliable circulation, drugs will penetrate easily. On its part, *Anjana Dravya* tends to be fairly well distributed evenly over the eyeball as a consequence of drugs entering through the perilimbal and episcleral capillaries after being released from the aqueous flow within the eye.[14]

Nasya (Nasal Instillation)

Nasya (Nasal Instillation) is a distinctive *Ayurvedic* treatment, where herbal oils or powders are instilled through the nasal passages. *Nasya* (Nasal Instillation) treatment activates the olfactory nerves associated with brain activity, which may improve mental acuity and cognitive ability. This can be important for athletes who need to concentrate and focus for long periods in competitions.[15,16] Nasal instillation (*Nasya*) is said to strengthen the musculature of the neck, shoulders, and chest. This is especially helpful for athletes who suffer from strain in these regions due to rigorous training.

Regular administration helps maintain muscle tone and prevents injuries by soothing imbalances in the *Vata Dosha*, which can cause pain and discomfort. [5] It has been shown that *Nasya* changes brain activity and increases functional connectivity, which can enhance sports-related cognitive functions such as concentration and reaction time.[17] *Prathimarsha Nasya* - one of the subtypes of *Nasya*, - this procedure is like a golden hammer, helpful for athletes who want to develop their musculature and general physical performance. This *Ayurvedic* procedure is really important for supporting athletic health and fitness goals since it nourishes muscles, improves circulation, balances *Vata Dosha*, prevents injuries, and improves performance metrics without any other side effects. Regularly incorporated into training plans, long-term benefits can be seen in strength and agility in athletes. The study by Saritha S, Jyothi R, and Nafeesath Beevi[5] revealed the positive effects of *Nasya* on athletes' physical fitness, which indicates the enhancement of athletic performance. Health-promoting benefits of *Nasya* can be described as the fact that no illness ever strikes the head, eyes, or ears. All forms of morbidity are eradicated from the mouth, nose, ears, and eyes, and strengthen sense organs.[18] The most probable action includes the cribriform plate of the ethmoid bone that contains nerve endings, *Nasya Dravya* stimulates these nerve endings, sends a signal to the central nervous system, and sets the body's normal physiological activities going. Dust particles are not allowed to penetrate the nasal canal due to the sticky characteristic of the *Nasya Dravya*. The cavernous sinus is where the venous circulation of the nose is exhausted. Emissary veins from the brain also drain into the cavernous sinus. Thus, it is possible that *Nasya* medication's active principle might be exerting its effect on the brain through the cavernous sinus.[19]

Abhyanga (Oil Massage)

One of the main tenets of *Dinacharya* is *Abhyanga*, which involves applying medicated oil to the entire body through rhythmic massage. The word *Abhyanga* denotes smearing the body with unctuous or oily substances. Oil is considered the best for the massage because skin (*Sparshanendriya*) is dominated by *Vata Dosha*. [20] Sense of touch is perceived by the *Vata Dosha* itself and oil has the special property to pacify this *Vata Dosha*.

According to *Ayurveda*, in order to live a good life, one should conduct oil massage, on a daily basis, or at the very least, apply oil to the head, ears, and feet.[21] Daily massage wards off exertion and aggravation of *Vata*, and bestows good vision, nourishment to the body, long life, good sleep and good and strong skin.[22] According to *Acharya Charaka*, daily oil massage brings softness in the skin, prevents aggravation of *Kapha* and *Vata*, nourishes *Dhatu*, enhances luster of the body, and gives strength and improves complexion.[23] Also, he says, the body of one who does oil massage regularly does not become affected much even if subjected to accidental injuries or strenuous work. [24] As a sports person undergoes daily training and workout sessions so oil massage helps withstand such strenuous work. It is very beautifully expressed while stating the importance of oil massage in *Charak Samhita*, as a pitcher by smearing with oil, dry skin by applying oil, and the axle of a cart with lubrication becomes strong and jerk-resistance, so by oil massage the body becomes firm, smooth-skinned, free from disturbances of *Vata* and tolerant of exertion and exercise.[25]

Typically, herbal oils used during oil massage maneuvers help to relax the sore muscle tissues and bring about faster recovery to the body after strenuous exercises. Many sportspersons experience muscular tension and rigidity resulting from rigorous exercise. Massage helps break up muscle knots, alleviate spasms in muscles, and increase the elasticity of muscles. Massage improves blood circulation throughout the body; this can aid in muscle repair and growth and contribute to overall fitness. As Massage is a non-invasive and easy-to-administer procedure that can be done daily by any individual on its own without having any serious ill effects on our health so it can be used in sports persons daily to enhance their strength (*Bala*), performance and endurance and to minimize the after-work out effects on the body. Oil massage helps to promote lymphatic drainage and blood circulation, which helps to reduce and alleviate the muscular soreness and accelerate recovery after exercise. The technique helps relieve tiredness and discomfort by aiding in the removal of lactic acid, a result of intense exercise. Regular oil massage enables athletes to feel psychologically relaxed, which is critical for maintaining concentration and reducing performance anxiety.[26]

The proposed mode of action of Abhyanga suggests manipulation of body parts by massage, enhances the overall blood circulation and transports the potency of drugs to desired parts. It enhances the nerve stimulation and enhances the release of endorphins and enkephalins, which have an analgesic effect.[27]

Vyayama (Exercise)

Vyayama is defined as any desired physical exercise that contributes to the stability and strength of the body.[28] *Acharya Sushruta* says that a person who regularly engages in *Vyayama* will be resistant to the attacks of their enemies. He is not attracted to old age (*Vardhakya*) easily, and his body's muscles grow stronger. It enhances the beauty of the body, especially in individuals who lack certain attributes, age, or physical attributes. A person who exercises regularly has no trouble digesting harmful and inadequately prepared food.[29] People should exercise according to their *Bala* (strength), or half of their complete power, in all seasons; otherwise, it can be harmful.[30] According to certain *Acharyas*, *Balardha* (half the total strength) exercises is the result of excessive perspiration on the nose, arms, shoulders, forehead, and axilla.[31] Since these symptoms are typically associated with effort, *Acharyas* may be advised to cease *Vyayama* after experiencing these symptoms in order to avoid overexertion. Exercise should be done until half of your energy is used up in the cold and spring months, but less than half of your energy should be used in the summer, rainy season, and winter.[32] *Samyag Vyayama Lakshana* (Signs of proper exercise) are the appearance of sweat, an increase of respiration, feeling of lightness of the whole body and feeling of blockage in the region of the heart and other organs of the body these are indicative of the exercise being performed correctly.[33] *Vyayama* makes the body feel lighter, improves stability, the ability to perform tasks, and the body's ability to endure pain, strain, and other forms of suffering. It also helps to balance the three *Doshas*, particularly the *Kapha Dosh*. The power of digestion (*Agni*), is increased by it.[34] The excessive engagement in *Vyayama* culminates in the manifestation of *Shrama* (fatigue), *Klama* (exhaustion), *Kshaya* (depletion of bodily tissues), *Trishna* (intense thirst), hemorrhaging from various bodily regions (*Raktapitta*), *Pratamaka* (visual obscurity), *Kasa* (cough), *Jwara* (pyrexia), and *Chardi* (vomiting).[35]

The overindulgence in *Vyayama* induces *Urakshata* (thoracic injury), which consequently results in the expulsion of blood, pus, and mucus during the act of coughing.[36] *Ajeerna* (Indigestion), *Navajwara* (fever), *Udakodara* (ascites), *Raktapitta* (bleeding disorders), *Mutrakruchra* (dysuria), *Vatarakta Vyadhi* (gout), *Karna Roga* (ear diseases), *Asthibhagna* (bone fracture), *Bhagandhara* (fistula in ano) are among the conditions for which *Vyayama* should be avoided. People who are experiencing anger, emotional distress, grief, or fear should not do *Vyayama*. Additionally, people who have gotten extremely thin and whose regular jobs require a lot of physical exercise shouldn't do *Vyayama*. [37] *Vyayama* strengthens muscles, increases flexibility, and improves cardiovascular health. These physiological changes help athletes perform better and have more endurance. Additionally, regular exercise improves the transport of oxygen to muscles, which is essential for high-intensity tasks.[38.39]

Udwartana (Dry Powder Massage)

Dry Powder Massage is a technique wherein medicinal plant powder is rubbed over the body in the opposite direction of the growth of hair follicles. There are two main types of it 1. *Udgharshana* and 2. *Utsadana*. *Udgharshana* means rubbing the body with medicinal plant powder without mixing oil or any other liquid, whereas in *Utsadana* the medicinal plant powder is mixed with oil or any liquid in the form of paste. Generally used powders for dry powder massage are *Kolakulathadi Chuna*, *Yava Chuna*, *Triphala Churna* etc. Advantages of *Udwartana* is that it reduces *Kapha Dosha* vitiation, lessens the body's extra fat, corrects the *Vata Dosha* imbalance, encourages skin excellence, makes the extremities more stable, produces a feeling of lightness throughout the body, removes the unpleasant body odor, cut down on excessive perspiration, prevents untimely drowsiness, cures the itchy feeling. Maintenance of body weight for a sports person is very crucial in all sports, the dry and scrapping nature of *Udwartana* helps in reducing the extra fat over the body and hence helping in reducing the body weight. The probable mode of action of it is rubbing of medicinal powder facilitating effusion absorption, alleviating blood stasis, and eliminating morbid substances. Deep pressure massage enhances tissue fluid interchange by promoting circulation in superficial veins and lymphatics.

It mitigates fatigue by expelling metabolic byproducts. It significantly affects muscle dynamics. It provides mechanical stimulation that induces contraction. It also enhances venous circulation. The alternating pressure and relaxation supply fresh blood to the area. Consequently, there is a localized increase in temperature. This process promotes waste elimination. Furthermore, it aids in the reabsorption of inflammatory substances and the absorption of lipids in adipose tissues.[40]

Snana (Bathing)

The everyday practice of *Snana* (bathing) is what eliminates *Sweda* (sweat) and *Mala* (waste) and promotes human health. This practice is thought to promote physical and mental freshness by clearing the body of perspiration, debris, and pollutants. *Acharya Charaka* says that *Snana* is the best way to remove fatigue (*Snanam Shramaharaanam Shreshtam*). [41] There are two types of cleanliness in the *Dinacharya*: internal and external. Internal cleanliness is maintaining purity and balance within the body and mind, and external cleanliness is to keep the body clean via *Snana*, etc. The body needs cleanliness for growth, development, and wellness. The greatest way to clean is with *Snana*. *Yadnyavalkya* states that there are seven different kinds of *Snana* 1. *Mantra Snana*, 2. *Bhouma Snana* 3. *Agneya Snana* 4. *Vayavya Snana* 5. *Divya Snana* 6. *Varuna Nana* 7. *Manasa Snana*. [42] Among these *Varuna Snana* is the best *Snana* described in Mahabharata. The general rule for bathing is when bathing the head, cold water should be used rather than hot water because the latter may weaken the hairs and impair vision. Bathing with *Sheeta Jala* (cold water) relieves bleeding disease whereas *Ushna Jala* (hot water) *Snana* increases strength and even relieves *Vata* and *Kapha Doshas*. [43] Bath by hot water below the clavicle level increases strength whereas to head decreases the strength of hairs and eyes. Hot water bath to head causes harmful effects on the eyes in all the seasons. [44] The contraindication for *Snana* is person who is suffering from *Atisara* (diarrhea), *Ardit* (facial paralysis), *Adhmana* (distention of the abdomen), *Pinas* (rhinitis), *Bhuktvat* (immediate after consuming food), *Jwara* (fever), eye disease, ear disease, *Arochakka* (loss of taste), *Ajirna* (indigestion), Disease caused by *Vatdosha*, first three days of menstrual bleeding, at midnight, with much cloth, and near unknown ponds.

The person who is contraindicated to *Snana* due to disease, aging, or weakness should take sponging which is cleaning body parts with a wet piece, punch, or cloth.[45] Sportspeople who engage in daily training sessions and workouts experience excessive perspiration, exhaustion, and contact with dust, dirt, and other debris; therefore, it is recommended that one practice *Snana* every day to eliminate such problems and fatigue. According to *Acharya Charak Snana* imparts a sense of purity, aphrodisiac, relieves fatigue and removes sweat and dirt from the body, promotes strength and endurance in the body.[46] *Acharya Manu* has explained the 10 qualities of *Snana Sheela Manushya* means the one who practices *Snana* daily increases *Bala* (strength), enhances *Roop* (beauty), *Swarashudhi* (clear voice), *Varnashudhi* (complexion), *Sparsha* (touch), *Gandha* (pleasant odor), *Parishudhatha* (purity), *Shanty* (peace), *Saukumarya* (delicacy), *Uttam Strilabha* are the qualities of *Snana Sheela Manushya*. [47] *Snana* improves blood flow, which is important for sportsmen. Increased blood flow makes it easier for nutrients to reach muscles more quickly, which promotes muscular growth and repair following strenuous exercise. The body's main stress hormone, cortisol, can be reduced by taking a bath. For athletes who frequently deal with high-pressure circumstances, this reduction aids in anxiety management and builds a sense of well-being. Endorphins and serotonin, which are linked to elevated mood and decreased anxiety and depressive symptoms, are released when *Snana* is consumed. This psychological boost can be especially helpful for athletes who are stressed out or experiencing mental exhaustion.[48] After training, the revitalizing effects of a bath can also support relaxation and mood enhancement.

Discussion

Sports medicine is ever-changing, always looking for new ways to improve athletic performance and reduce the risk of injury. *Ayurveda*, India's ancient system of medicine, has a different angle with its focus on preventive, promotive and curative aspect. Preventive potential of *Ayurveda's Dinacharya* has been highlighted here. *Dinacharya* focuses on synchronizing with natural cycles to preserve health and avoid disease. This integrated approach has great potential for athletes, whose bodies are frequently pushed to extreme physical and mental limits.

Several *Dinacharya* practices help athletes in different ways *Brahma Muhurta Uthan* (waking up early), preferably 1 hour 36 minutes before sunrise, is said to improve mental sharpness, bodily energy, and spiritual health. For athletes, it means better concentration, enhanced training preparation, and regulated circadian rhythms, which may accelerate immune and metabolic functioning. But before waking up one should check for the signs of digestion of food taken on the previous night, otherwise, it may cause indigestion and other mental problems. Aside from giving a distraction-free training ground, rising early also secretes the hormone serotonin that makes the athlete feel happy. *Ushapana* improves the health of the digestive system, rehydrates, and energizes the body by cleansing the digestive system. This averts the buildup of toxins from inappropriate digestion since it eliminates the toxins. Proper hydration is important for athletes as it maintains energy levels and overall performance under rigorous training. Athletes who engage in excessive training and workouts experience dehydration; *Ushapana* helps them replenish lost fluids. *Dantadhavana* and *Jivhanirlekhana* (brushing the teeth and scraping the tongue) with oral hygiene ensures the elimination of debris, absence of halitosis, and overall wellness. Oral hygiene is especially significant among athletes since dehydration and extreme exertion contribute to favorable environments for the proliferation of bacteria within the mouth. This procedure helps get rid of this bacterial growth stimulates the sense of taste and increases saliva secretion which facilitates the digestion process. Eye health which is often overlook by many athletes leading to serious problems down the line. *Anjana* entails instilling medicated eye drops or ointments to keep the eyes healthy, which is very important for performance in sports. *Anjana* can enhance eyesight, hand-eye coordination, and depth perception, and alleviate eye strain commonly suffered by athletes as a result of screen exposure and concentrated visual attention. On-field athletes are mostly exposed to significant amounts of sunlight and wind; *Anjana* helps them by providing endurance against them by improving their eye health. *Anjana* can be particularly helpful for athletes in sports like baseball, tennis, and cricket, where sharp vision, and quick reflexes are crucial for optimal performance.

Nasya's use of herbal oils or powders by nasal intake can improve the mental sharpness, intellectual capacity, and muscularity of the neck, shoulder, and chest hence it can be particularly beneficial for athletes in sports like swimming, wrestling, weightlifting, throwing and boxing etc. *Nasya* can enhance concentration, and response speed, and prevent trauma by balancing the *Vata Dosha*. *Nasya* improves the brain activity by increasing functional connectivity thereby improving concentration and reaction time which is very crucial in all sports. Regular usage of *Nasya* helps get rid of all the illnesses of the head, eyes and ears. *Pratimarsha Nasya* being a masterstroke helps athletes boost their performance and overall wellbeing without having serious complications. *Abhyanga* by using medicated oil can relax painful muscle tissues, enhance speedy recovery, enhance the circulation of the blood, and ease tension in the muscles. *Abhyanga* also enhances lymphatic flow, minimizes soreness of the muscles, and makes the athletes feel relaxed, which is vital for being concentrated and minimizing anxiety to perform. For Athletes who are primarily prone to accidental injuries, strenuous training sessions, and disturbances of *Vata*, daily *Abhyanga* helps withstand these activities and provide tolerance to exertion and exercise. Also, a daily workout makes their body rigid and stiff, daily *Abhyanga* helps release the tension in muscle fibers and provide strength and flexibility. *Vyayama* is physical exercise, an essential part of *Dinacharya*. Everyday physical exercise according to one's capacity is essential for overall well-being, strength, and pliability. *Vyayama* is good for the circulation, metabolism, and building up of strength in the body. In athletes, *Vyayama* has to be specialized in terms of sport and athletic demands, focusing on the build-up of strength, endurance, agility, and protection against injury. *Ayurveda* also incorporates *Yoga* and *Pranayama* in it for physical as well as mental stability. The amount of *Vyayama* for each individual is different according to their *Bala*, one should practice *Vyayama* half the amount of their total *Bala* called *Ardhashakti* as excess exercise may lead to serious illness. *Udwartana* is a treatment massage done using herbal powders. The practice peels the skin, eliminates dead cells, and stimulates blood flow. It is said to lower *Kapha Dosha*, which is linked to obesity and lethargy. For sportspeople, *Udwartana* can enhance skin tone, minimize cellulite, and increase muscle tone.

The heavy peeling maximizes detoxification and makes the skin feel clean and refreshed. Maintenance of body weight and shape in sports like gymnastics can be well managed by *Udwartana*. *Snana* or bathing is an important aspect of *Dinacharya* to maintain cleanliness and health. Bathing removes sweat, dirt, and oil from the skin, preventing infection and feeling clean. The water temperature has also therapeutic benefits. A warm bath can relax muscles and ease tension, whereas a cool bath can stimulate the body and enhance circulation. For athletes, *Snana* is essential for recovery after exercise, calming inflamed muscles and soothing soreness. A revitalizing impact promotes relaxation and elevates athletes' moods.

Conclusion

Dinacharya, or the *Ayurvedic* daily regimen, is one of the holistic and possibly highly effective methods for preventive care in sports medicine. The following practices: *Brahma Muhurta Uthan*, *Ushapana*, *Dantadhavan* and *Jivhanirlekhana*, *Anjana*, *Nasya*, *Abhyanga*, *Vyayama*, *Snana*, *Udwartana*, bring about physiological as well as psychological advantages to human physiology by optimizing every activity and growing mental stability.

In principle, there seems to be support for the ability of *Dinacharya* to enhance the performance of an athlete and aid in the prevention of injuries, but these can only be legitimized and advanced through further strict scientific studies into the practices involved. Future research should focus on large-scale RCTs involving different groups of athletes and even specific sports to address practical issues.

Modern sports medicine can include *Ayurveda* to improve the health status and maximize the performance of athletes. By merging accuracy in contemporary sports science with the holistic knowledge of *Ayurveda*, we can provide the basis for a more comprehensive and effective approach to athlete care.

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