

***Salat, First expression of Iman& Wudhu: The Cornerstone of Hygiene .....by Dr Javed Jamil***

*Salat is the most important part of a Muslims life. It is to be offered by all on daily basis and is the fundamental spiritual practice through which a Muslim connects to his lord Allah SWT. Through Salat a Muslim engages in communication with his creator several times a day. Surely, if a Muslim achieves perfection in Salat, his/her life matters would not fall prey to any unholy worldly temptations. Wudu as well as physical actions during salat also have huge medical benefits. It is a great challenge for every Muslim to achieve perfection in physical as well as spiritual aspects of salat.*

*In his paper below, Dr Javed Jamil, a reputable Islamic scholar and a medical doctor analyses all aspects of Salat in details. Salat is preceded by the ablution (wudu) which in itself carries huge benefits. For the convenience of readers, Dr Jamil has produced a separate paper on wudu, which is included below:*

## **1) Salat :First Expression of Iman**

One or the other kind of Prayer is an essential part of all religions. Worship of One who is the Creator and Master of whatever is there in the universe is sure to attract His special attention. Ibadah or worship in Qur'an is exclusive for men and jinns ("I created men and jinns for nothing but worshipping Me"); while all other creatures submit to God by way of inherent unconscious nature that are reflected in Sajdah, Tasbih, Hamd, Taqdees, etc, human beings and jinns submit by way of a conscious and intelligent decision, the Ibadah; and the obligatory form of Ibadah is Salat. Ibadah is an all-time service, Salat is a specific form of Ibadah performed at specific times in a specific manner, through which man receives the Blessings of his Only Lord. Man stands, bows and prostrates before God, and God showers His Blessings on him. Salat establishes a direct relationship between man and God, and is the First Formal Expression of his Iman, his unadulterated conviction that God alone deserves worship in a way dictated through His Last Book and His Last Ambassador, Muhammad (PBUH) . This does not only make man a deserving candidate for His Special Favour in Hereafter, this also helps him as an individual, and mankind as a whole, in attaining Comprehensive Peace in this world. If Wudhu is the corner-stone of Physical hygiene, Salat is the corner-stone of mental, spiritual and social hygiene. It protects health in many ways. (See below.) It diverts attention from the ennui of routine activities and provides an escape route for worries, at least for the time being. It revitalises brain, so one can start afresh. Imploring God imbues a feeling of immense satisfaction in the mind; one feels as if one has shared one's worries with One who is Omnipotent. One feels confident that God will surely find a way for him. Burdens do seem to have lightened; diffidence does appear to have evaporated. This helps mental peace in a big way. Depression and anxiety get a thrashing and are less likely to devastate an individual who pays regular attention to his prayers. In addition, Salat prevents man from succumbing to social evils and dangerous practices. Salat with Jama't (Congregational prayers) inculcates social cohesiveness and unity.

1. As stated above, prayers in Islam are directed to none but the Highest Authority in the Universe; no deputy stands between God and man. One therefore feels guaranteed that

God has listened to his invocation. This direct relationship with Almighty generates a much greater degree of confidence than an indirect relationship through a devata, Son or Apostle.

2. Prayers in Islam are more frequent and disciplined. At least five times a day a Muslim bows to God, glorifying Him, seeking His forgiveness and imploring his help in all the spheres of life. This means that he has a break from the routine at least five times a day. This not only disciplines his life but also has a much greater relaxing effect on brain than once a day prayer would have. Obviously, anxiety and depression will be far less likely to distract the person. Timings of prayers have been perfectly chosen: before sunrise, immediately after noon, in the afternoon, after the sunset and in the night. Regular reminders of God's presence and His injunctions have definite influence on his actions; he is less likely to engage in forbidden practices; the more sincere, attentive and regular he is the more the chances are of his leading a purer life.

3. In Islam, prayer is not merely a ritual; it is a physical, mental, spiritual and social exercise. Every prayer is to be preceded by ablution (Wudhu) requiring washing of exposed organs in a specified manner. This involves rinsing of mouth, washing of face, hands and forearms, soaking of head and soaking or washing of feet. I had shown in a paper written about 25 years back (See IMW April issue) that Wudhu involves an area of the body that represents about 80 percent area on the sensory map, present in brain. I had also shown that the sequence of the washing of the organs is in accordance with the sequence of the organs on that map. Five times Wudhu is sure to result in a marked reduction in the incidence of a number of diseases of teeth, gums and skin.

4. The sequence of different movements in the Muslim prayer is also in accordance with their innervation. (See later.) Salat, in addition, is a physical exercise of great value. Islamic prayer does not involve a mere sitting or standing, as is often the case in other religions; it is a well-organised regime of a number of movements that involve almost all the muscles of the body. Every Salat refurbishes all the important organs ridding them of fatigue. One finds a renewed enthusiasm to work; common problems like body-ache, headache, nervousness, fatigue, lassitude etc are less likely to set in.

5. Apart from being a terrific spiritual, physical and mental exercise, Salat is an extraordinary socially beneficial exercise too. In Islam, congregational prayers are preferred to individual prayers. Almost all the mosques conduct congregational prayers regularly five times a day. People gather there to bow before God in the leadership of an Imam. This inculcates discipline, order, unity, equality and brotherhood. There is no distinction on any basis, position, class or personality, and the people offer prayers in special lines, standing on the sides of one another. People know one another; they wish one another and inquire about their well being; they feel concerned when a regular fellow fails to turn up. Those who are in need of support or assistance often use a mosque as the forum for appeal; more often than not they get a positive response from the worshippers. Furthermore, Salat helps a person to avoid social evils; one gets regular reminder of what is liked or disliked by God. One is least likely to falling victim of alcoholism and gambling; the probability of indulging in unhealthy sexual practices markedly decreases.

Salat is expected to have a sobering effect on all individuals; if there are some weaknesses of behaviour and character, these show, in almost all cases, a steady improvement; they are certainly better individuals praying than if they had not been praying at all. Persons are likely to become more honest, righteous and humble once they start to offer prayers; the more regular they get the more improvement they are expected to show in their behaviour. If one does not show distinct improvement in one's behaviour, it indicates lack of sincerity in the prayer; there are persons who join prayers in order to deceive people; their prayers will be of no avail either in this world or in Hereafter.

## Theological Aspects

### Etymology

Salāt (pl. ṣalawāt; Arabic: Persian, Bengali, Urdu and Turkish: namāz), the Islamic prayer, is one of the Five Pillars of Sunni Islam and one of the ten Practices of the Religion of Twelver Shi'a Islam, observed by Muslims in supplication to God. Prayer is performed five times a day: at dawn (fajr), noon (dhuhr), in the afternoon (asr), at sunset (maghrib) and nightfall (isha'a). It is compulsory for all sane Muslims once they have reached puberty.

A Muslim worshipper is a muṣallī or and the prayer mat, a muṣalla.

### Purpose

Qur'an, says "The true believers are those who feel fear in their hearts when God is mentioned. And when His Revelations are recited to them, they find their faith strengthened. They do their best and then put their trust in their Lord."(8:2)

"To those whose hearts, when God is mentioned, are filled with fear, who show patient perseverance over their afflictions, keep up regular prayer, and spend (in charity) out of what We have bestowed upon them." (22:35)

Islam is defined as submission to God. The purpose of Salat is to make a methodical expression of submission in accordance with the guidelines given by Allah and His Rasul (PBUH). Salat is a direct communication between God and man. Not only man stands, bows and prostrates before His Lord, he implores Him for successes in the World and Hereafter, and for whatever he wants. As Quran is recited in the prayers, praying also reminds man of God's messages and commands. Salat, especially when offered in congregation, is also a reminder of the unity of Muslims and the final unity of mankind in the Path of God. Prayers also prepare men and women to follow the commands and wishes of God in their lives. Prayers help the mankind in treading the Established Path and in avoiding the forbidden practices.

### Preparation

## **Cleanliness**

Islam advises that the Salat be performed in a ritually clean environment (Qur'an 5:6) . The body must be clean, free from any of the discharges, like male and female discharges (Ghusl or bath compulsory), urine, stools, blood, any other form of dirt (Wudhu compulsory). Exposed portions are to be cleansed through Wudhu (See the April issue for details.) Both the dress and the place must be clean. Both men and women are required to cover their bodies (awrah) in reasonably loose-fitting garments.

## **Conditions**

The compulsory prayer is obligatory on:

- Muslims
- Adults (have reached puberty)
- are of sound mind

## **Qiblah**

The Salat has always to be performed facing the Ka'bah in Mecca, Saudi Arabia, believed to be as first place of worship of God on Earth, except when one is not in a position to determine the direction of Ka'bah.

## **Articles of Prayer**

[1] **Niyyah**: Reciting intention for prayer in the heart

E.g.: I intend to offer 2 raka'ah obligatory prayer of Fajr for Allah Almighty ,add "Behind the Imam" if praying in a Mosque.

[2] **Takbeeratul-Ihram**

Saying (God is The Greatest).

[3] **Qiyaam** or Standing right

For the able-bodied, leaning or not standing upright invalidates prayer. If one is incapable of standing, one may sit, lay on the right side, lay on the left side, lay on one's back or as one is able to do.

[4] **Reciting Al-Fatiha**

Recitation of Al-Fatiha is obligatory for every raka'ah, one unit of Salat.

Reading another surah after Al-Fatiha is also obligatory for the first 2 raka'ah for all obligatory prayers, however it is required in all raka'ahs of supererogatory.

[5] **Ruku' or Bending**

Ruku' is bowing the body until the palms are on the knees. Stopping means all major body parts including arms, wrists, head, legs stop - as long as saying "Sub'han-Allahi Rabbi-al Azeem". (Glory to God, the Great Guardian) If the body still moves, stopping is not done.

[6] **I'tidal and stopping**

I'tidal is standing again after ruku'. While the body is raising up, an additional option is to read Samiallahu liman hamidah (God Listens to him who praises Him). During standing, an additional option is to read Rabbana lakal hamd (Our Lord, to You is due all praise).The body must stop as long as saying "subhanallah".

[7] **Prostration [Sajdah]**

Prostration involves putting the bare forehead, both palms, both knees and the base of the toes of both feet on the place of prostration. The forehead must be bare; a covered

forehead invalidates prayer. Subhana Rabbial Aala (Glory to my Lord, the Most High Most Praiseworthy). There are 2 prostrations, the second is done after sitting between 2 prostrations.

#### [8] **Sitting between 2 prostrations**

During the sitting between the two prostrations, an additional option is to recite:

" Allahummaghfirli, warhamnii, wajburnii, wahdinii, warzuqnii, warfa'nii, wa'afinii, wa'fu'annii"

#### [9] **Final Tashahhud**

Reciting the final Tashahhud: All greetings, blessings and good acts are from You, my Lord, Greetings to you, O Prophet, and the mercy and blessings of Allah.

Peace be unto us, and unto the righteous servants of Allah I bear witness that there is none worthy of worship except Allah.

And I bear witness that Muhammad is His servant and messenger.

#### [10] **Sitting for Final Tashahhud**

The final Tashahhud must be done while sitting.

#### [11] **Greetings for Muhammad and for Abraham**

At least by saying

Allahumma salli ala Muhammadin wa-ala aali Muhammdin kama sallayta ala Ibrahim waala aali Ibrahim Innaka hameedum majeed

Allahumma baarik ala Muhammadin wa-ala aali Muhammdin kama barakta ala Ibrahim waala aali Ibrahim Innaka hameedum majeed

O Allah, bless Muhammad and the Aal\*-e-Muhammad; As you have blessed Abraham and the Aal of Abraham! O Allah, be gracious unto Muhammad and Aal-e-Muhammad; as you were gracious unto Abraham and the Aal of Abraham!

Surely you are the Most Praiseworthy, the Most Glorious.

\* Aal literally means Descendants but is also translated as People.

[12] **First Greeting** "peace be upon you and Allah's Rahmat and Sufficiency" to the right side. Assalamu alikum warahmatulahi wabarakatuhu.

#### [13] **Second greeting**

Greeting Assalamu alikum

warahmatulahi wabarakatuhu (peace be upon you, and Allah's Rahmat and Sufficiency) to the left side.

#### [14] **Following the Prayer Sequence**

Prayer not in its rightful sequence is invalidated.

From [3] standing right to the [8] second prostration makes one raka'ah. These are repeated for every raka'ah. At the last raka'ah, the rest [9] to [12] is completed. (Note: For more than 2 raka'ah prayers, an additional option is to sit for Tashahhud on the second raka'ah.)

## **Types of salat**

Sal'ah may be classified into four categories of obligation: fard, wajib, sunnah and nafl. Fard sal'ah are compulsory, non-performance of which renders one a non-Muslim according to the Hanbali Sunni School, for the other Sunni schools it renders one a sinner.

Wajeeb As-salat are compulsory, non-performance of which renders one a sinner and the denial of its obligatory nature renders one a 'fasiq' a transgressor whose witness would not be accepted in an Islamic court

Sun'nah sal'ah are optional and were additional voluntary prayers performed by Muhammad SAW they are of two types The 'Sun'nah Mukkaddah', those practiced on a regular basis which if abandoned cause the abandoner to be regarded as sinful by the Hanafi School and the 'Sun'nah Ghair Mukkaddah' those practiced on a semi-regular practice by Muhammad which all are agreed upon that its abandonment doesn't render one sinful.

□ Nafl sal'ah are optional and regarded as extra prayers which bring more reward.

## **Fard As-salat**

The fard As-salat are the five compulsory daily prayers, the Friday prayer (Jumu'ah) and the funeral prayer (Janazah). Fard prayers are further classed as fard al-ayn (obligation of the self) and fard al-kifayah (obligation of sufficiency). Fard al-ayn are those actions which are obligatory on each individual; he or she will be held to account if the actions are not performed. Fard al-kifayah are actions obligatory on the Muslim community at large, so that if some people within the community carry it out no Muslim is considered blameworthy, but if no one carries it out all incur a collective punishment.

Men are required to perform the fard salah in congregation (jama'ah), behind an imam when they are able. According to most Islamic scholars, performing salah in congregation is obligatory for men, when they are able, but is neither required nor forbidden for women.

## **Jumu'ah**

Salat al-Jumu'ah is a congregational prayer performed on Friday which replaces the dhuhur prayer. It is compulsory upon men to perform it in congregation, while women may perform it so or may perform dhuhur salah instead. Salat al-Jumu'ah consists of a sermon (khutba) given by the speaker (khatib) after which two raka'ah are performed. There is no Salat al-Jumu'ah without a khutba.

## **Istikhaarah**

Salat al-Istikhaarah is a prayer performed when a Muslim needs guidance on a particular matter, such as whether they should marry a certain person. In order to perform this salah one should perform a normal two raka'at salah to completion. After completion one should say a du'a called the Istikhaarah du'a. The intention for the salah should be in one's heart to perform two raka'at of salah followed by Istikhaarah.

The salah can be offered when travelling. The salah must be performed in the Arabic language.

## **Qada**

In certain circumstances one may be unable to perform one's prayer within the prescribed time period (waqt). In this case, the prayer must be performed as soon as one is able to do so. These prayers performed after the prescribed time are called qada. It is not permissible to deliberately miss performing the salah within its waqt with the intention of performing it afterwards.

## **Qasr and Jam' bayn as-Salaatayn**

When travelling over long distances, one may shorten some prayers, a practice known as qasr. Furthermore, several prayer times may be joined, which is referred to as Jam'a bayn as-Salaatayn. Qasr involves shortening the obligatory components of the Dhuhr, Asr, and Isha'a prayers to two raka'ah. Jam'a bayn as-Salaatayn combines the Dhuhr and Asr prayers into one prayer offered between noon and sunset, and the Maghrib and Isha'a prayers into one between sunset and Fajr. Neither Qasr nor Jam'a bayn as-Salaatayn can be applied to the Fajr prayer.

There is no reference to Qasr during travel within the Qur'an itself; the Qur'an allows for Qasr only when there is fear of attack.

## **Wajib salat**

The wajib salat are considered compulsory and not performing them is considered a sin.

### **Witr**

Witr is performed after the salah of isha'a (dusk). Some Muslims consider witr wajib while others consider it optional. It may contain any odd number of raka'ah from one to eleven according to the different schools of jurisprudence. However, Witr is most commonly offered with three raka'ah.

To end prayers for the night after isha'a, the odd numbered raka'ah must have the niyyah of "wajib-ul-Lail", which is mandatory to "close" one's salat for that day.

## **Eid**

Eid salat is performed on the morning of Eid ul-Fitr and Eid ul-Adha. The Eid prayer is most likely an individual obligation (fard al-ayn), though some Islamic scholars argue it is only a collective obligation (fard al-kifayah) It consists of two raka'at, with seven takbirs offered before the start of the first raka'ah and five before the second. After the salat is completed, a sermon (khutbah) is offered. However, the khutbah is not an integral part of the Eid salat. The Eid salat must be offered between sunrise and true noon i.e. between the time periods for Fajr and Dhuhr.

## **Mosque Prayer**

Mosque prayer is when you enter the mosque and pray 2 rakats.

This prayer is called "Tahiyyatul masjid"; this is one of the rites of the mosque. Every Muslim entering the mosque can perform these two rakats.

## **Prayer in congregation**

Prayer in congregation (jama'ah) is considered to have more social and spiritual benefit than praying by oneself. When praying in congregation, the musallees stand in straight parallel rows behind the chosen imam, facing qibla. The imam, who leads the congregation in salat, is usually chosen to be a scholar or the one who has the best knowledge of the Qur'an, preferably someone who has memorised it (a hafiz) . In the first row behind the imam, if available, would be another hafiz to correct the imam in case a mistake is made during the performance of the salat. The prayer is performed as normal,

with the congregation following the actions and movements of the imam as he performs the salat.

When the worshippers consist of men and women combined, a man is chosen as the imam. In this situation, women are typically forbidden from performing this role. This point, though unanimously agreed on by the major schools of Islam, is disputed by some groups, based partly on a hadith whose interpretation is controversial. When the congregation consists entirely of women and pre-pubescent children, one woman is chosen as imam.

When men, women, and children are praying, the children's rows are usually between the men's and women's rows, with the men at the front and women at the back. Another configuration is where the men's and women's rows are side by side, separated by a curtain or other barrier, with the primary intention being for there to be no direct line of sight between male and female worshippers, following a Qur'anic injunction toward men and women each lowering their gazes (Qur'an 24:30-31).

## **Important Nafil Prayers**

### **Tahajjud Prayer-Salatul layl -Night Prayer**

“And (during part) of the night, abandon sleep and keep vigil to pray Salat, in addition to the regular obligatory prayer. Your Rabb (the Sustainer) may (as a reward) elevate you to the position of High Distinction, Glory and Praise.”[THE HOLY QUR'AN: 17:79]

The time for praying Salatul-Layl is from midnight (midnight is reckoned as the time which is exactly half the time between sunset and the actual dawn) to the time of Adhan for Fajr prayers. However, it can be prayed at anytime after Isha prayers but it is better to pray during the last part of the night near to the time of Fajr prayers. One should begin with two quick rakahs and then one may pray whatever one wishes after that isha (RA) When the Prophet SAW prayed during the late-night, he would begin his Prayers with two quick rak`ahs.” (Muslim) It is recommended that one wakes up one's family, for Abu Hurairah quoted Muhammad SAW as saying:

“May Allah bless the man who gets up during the night to pray and wakes up his wife and who, if she refuses to get up, sprinkles water on her face. And may Allah bless the woman who gets up during the night to pray and wakes up her husband and who, if he refuses, sprinkles water on his face.” (Ahmad)

### **Ishraq and Chasht Prayers**

In a lengthy Hadith, Sayyidna Ali, RA s reported to have said, 'In the morning when the sun rises to the height of that the same as it is at the time of Asr, the Prophet SAW used to perform 2 Rakaats (Salatul Ishraq). When the sun rose in the east to the height where it is in the west at the time of Dhuhur Salat, he performed 4 Rakaats (Salat al-Duhaa, Chasht).' (Shamaail Tirmidhi, Hadith No.271)

According to the Fuqahaa (jurists) and Muhadditheen (scholars of Hadith), the time for Salat al-Duhaa is from the morning after the Makrooh time passes till Zawaal. But according to the Sufis this period covers the time for two separate Salats, one is Ishraq and the other is Duhaa. The Sufis substantiate their view from the above mentioned Hadith of Sayyidna Ali, Radi-Allahu anhu, and other narrations. (Khasaail Nabawiy pg.292)



## **Ishraaq Salat**

Rasulullah SAW ported to have said that Allah Ta'ala says, 'O son of Aadam, perform 4 Rakaats of Salat (Ishraaq) in the early part of the day. I shall help you in accomplishing all your responsibilities during the rest of the day.' (Mishkaat pg.116). In another narration of Tirmidhi, Rasulullah SAW is reported to have said, 'He who performs Fajr Salat with Jamaat and remains seated in the same place while engaging in Dhikr until after sunrise and thereafter performs 2 Rakaats Nafil Salat, (Ishraaq), he will obtain the Thawaab of one Hajj and one Umrah.' (Tirmidhi).

From the above Ahaadith, we learn that the number of Rakaats to be performed are 2 or 4 Rakaats, and the Mustahabb method of performing it is to remain seated in your place of Salat after Fajr and engage in Dhikr, etc. until sunrise. Then, approximately, 10-15 minutes after sunrise perform 2-4 Rakaats. 'If a person gets occupied in some worldly activity after the Fajr Salat, and after sunrise he offers Ishraaq Salat, this will also be permissible although the reward will be less.' (Bahishti Zewar part2 pg.30)

## **Prayer (Salat) in Qur'an**

### Times

\*For such prayers are enjoined on believers at stated times. (4: 103/A)

\*Guard strictly your (habit of) prayers, especially the Middle Prayer; and stand before God in a devout (frame of mind). (2: 238/A)

\*And establish regular prayers at the two ends of the day and at the approaches of the night. (11: 114/A)

### Purification of body before prayer

\*O ye who believe! when ye prepare for prayer, wash your faces, and your hands (and arms) to the elbows; Rub your heads (with water); and (wash) your feet to the ankles...(5: 6/A)

\*If ye are in a state of ceremonial impurity, bathe your whole body...(5: 6/A)

\*But if ye are ill, or on a journey, or one of you cometh from offices of nature, or ye have been in contact with women, and ye find no water, then take for yourselves clean sand or earth, and rub therewith your faces and hands; God doth not wish to place you in a difficulty, but to make you clean, and to complete his favour to you, that ye may be grateful. (5: 6/A)

### Friday prayers

\*O ye who believe! When the call is proclaimed to prayer on Friday (the Day of Assembly), hasten earnestly to the Remembrance of God, and leave off business (and traffic): That is best for you if ye but knew! And when the Prayer is finished, then may ye disperse through the land, and seek of the Bounty of God. (62: 9-10/A)

### Importance of prayers

\*Recite what is sent of the Book by inspiration to thee, and establish regular Prayer: for Prayer restrains from shameful and unjust deeds; and remembrance of God is the greatest (thing in life) without doubt. And Allah knows the (deeds) that ye do. (29: 45/A)

## **Medical Aspects**

## Salat (Prayer)

The Quran says:

- *For such prayers are enjoined on believers at stated times. (4: 103/A)*
- *Guard strictly your (habit of) prayers, especially the Middle Prayer; and stand before God in a devout (frame of mind). (2: 238/A)*
- *And establish regular prayers at the two ends of the day and at the approaches of the night. (11: 114/A)*

First, let us analyse the method of the *Salat* from an anatomical viewpoint. Human nervous system has two functional components: **Sensory** and **Motor**. Through sensory component, one controls various types of sensations like touch, heat, light, odour etc. The motor system governs the motions of the body. If for example, a needle pricks one's hand, this information will be carried immediately to the spinal cord and brain through the sensory system. Then the motor system with its headquarters in brain and spinal cord will order the part to pull away from the needle. In the same way as the brain contains a **sensory map**, discussed in the chapter on *Wudu*, it also contains a motor map. The sensory map is located on the Postcentral gyrus and the **motor map on the Precentral gyrus**. The sequence of various motor actions on the map is as follows:

- Swallowing, Chewing
- Tongue, Jaws, lips
- Face, Eyes, eyelids
- Neck
- Hand, wrist, elbow, shoulders
- Chest, abdomen
- Hip
- Knee
- Ankle, Feet.

It can be seen that the movements of different organs in *Salat* are almost exactly in **accordance with this sequence**. After performing *Wudu*, a Muslim has been advised to swallow some water. Then he starts the prayer with the reading of the *Niyyah* (intention) using his lips, jaws and tongue. He then focuses his eyes on the point of *Sajdah* (prostration), also flexing his neck in the process. Then he moves his hands, wrists, elbows and shoulders raising his hands (*Takbeer*). After standing for a while, he bends his hips, which also brings his chest and abdomen in motion (*Ruku*). After extending his body again, he goes for prostration (*Sajdah*) bringing his knees, legs and feet in action. Thus **in one unit (Rakat) of Salat, almost all the areas of the body engage in their movements, using almost all the major muscles of the body and activating almost all the motor system in the process.**

Let us try to understand the movements in a little more detail. The movements are anatomically divided into:

1. **Flexion**, which means bending in the sagittal plane. (The body has two planes: the **Sagittal** that divides the body into right and left portions, and the **Coronal**, that divides the body into Anterior and Posterior;
2. **Extension**, which means strengthening of the flexed part;
3. **Adduction**, which means bringing a part in the coronal plain (such as bringing back the legs raised on the right.);
4. **Abduction**, which is the opposite of the adduction;
5. **Inversion**, which is the flexing of the foot inwards; and
6. **Eversion**, which is the opposite of inversion.

The movements of every part are controlled by different nerves coming out of the Spinal Cord. When a person raises his hands for *Takbeer* at the beginning of the prayer, it involves the following actions:

- The abduction of the shoulders, controlled by **C5** (C here stands for the cervical part of the spinal cord.);
- The flexion of the elbow, controlled by **C5,6**;
- The extension of the wrist, controlled by **C7,8**;
- The adduction of fingers, controlled by **C8, T1**. (T stands for Thoracic)

This means that the actions are taking place in an orderly sequence involving the nerves **from C5 to T1**. When one goes to *Ruku* (bending), the movements of the arm, trunk and hip involve C5 to L<sub>2,3</sub>. Similarly, the movements involving *Sajdah* (prostration) have the following components and the nerve controls:

- Flexion of hips **L1,2,3** (L means lumbar)
- Extension of knee **L3,4**
- Flexion of ankles **L4,5**
- Extension of Hips **L5, S1**
- Eversion of feet **L5, S1**
- Plantar flexion **S1,2**

It can be easily noticed that the movements involving *Sajdah*, sitting in between them and the returning back to the position of *Qayam* (standing) evoke the nerves in an orderly sequence, first from above downwards and then down upwards. The sitting in between the *sajdahs* ensures that even the movements of ankle and fingers do take place; this could not have been possible if there had been no sitting. The *salat* ends at *salam*, which is done in the last to ensure that the attention is maintained before the prayer ends.

Let us now study the **impact of Salat on health**.

1. The regularity of the prayer ensures that a person maintains **a strict regime of hygiene**. A *salat* cannot be offered unless a man purifies himself. If one is in a state of impurity following a sexual intercourse, one has to take bath in a specified manner to ensure that all the discharges involving a sexual contact are fully removed. If one is not in a state of sexual impurity, one is required to wash one's organs that are usually exposed during the day. It has been proved in the previous chapter that the organs washed in **Wudu activate more than two third of the**

- mini-man present in the postcentral gyrus of the brain.** It has already been shown that the *Wudu* protects skin from the infective and cancerous disorders, helps in preserving high oral hygiene and also helps in keeping the internal infections at bay, particularly the urinary tract infections. The feeling of freshness that goes along with the *Wudu* is an added advantage.
2. Different postures of the prayer have been designed in a way **that most of the motor system of the brain gets activated and an overwhelming majority of the muscles of the body are brought into action.** Different postures help in the relaxation of the muscles that usually become taut owing to taxing activities of the different types of works. **The postures of *salat* are also a more comprehensive and easier-to-do alternative of the various yoga exercises.**
  3. *Sajdah* in particular is an extremely important posture. When I was studying in MBBS at King George's Medical College, Lucknow, my professor of Medicine, Prof. Chakravarti very fondly talked of "**Mohammedan's Prayer Position**", explaining that patients of several diseases try to keep themselves in this decubitus **because the cardiological output, the respiratory function, the amount of oxygen in the blood and the supply to the brain are at their optimum levels.** This decubitus helps in clinically diagnosing diseases like Bronchiogenic carcinoma, Pericardial effusion, persistent Thymus, etc. The extraordinary importance of this decubitus means that every *Sajdah* cleanses different organs and refurbishes the body with new vigour. It is pertinent to say therefore that *Sajdah* is not only the most loved sight in the eyes of God but is also the best position anatomically and physiologically. The more the number of *Sajdahs* in a specific prayer the greater the benefits will be. However, a very long *Sajdah* may increase the blood supply to the brain for an undesirable period of time; so instead of one *Sajdah*, two *Sajdahs* with a gap have been prescribed in the prayer.
  4. The **timing of the prayers and the number of units** in different prayers are also significant in terms of their impact on health. As has been elaborated above, every *Salat* comprises a certain number of units (*rakahs*), which are repeated several times thus repeating postures from standing to bending to prostrating to sitting a number of times. This ensures **several rounds of exercises involving the activation of different muscles and motor areas in the brain and spinal cord as well as increased circulation of blood to different areas in a rhythmic pattern.** Obviously, the more the number of units the more will be the refreshing effect on the body. Now the timing and the number of units in the 5 compulsory *Salats* have been designed to produce maximum effect. It can be noted that

First, the total number of obligatory (*fard* and *wajib*) and non-obligatory (*sunnah* and *nafl*) units in the 5 compulsory prayers is **48, which means that 2 units are practised per hour.** Out of these, 20 come in the category of *fard* and *wajib* and the rest in that of *sunnah* and *nafl*. The number of *rakahs* and the timing of each prayer are as follows:

Fajr (morning prayer)	After dawn, before sunrise	4 (2 + 2)
Zuhr (noon prayer)	Immediately after noon	12 (4+8)

Asr (Afternoon)	Afternoon	8 (4+4)
Maghrib (Sunset prayer)	Immediately after sunset	7 (4+3)
Isha (ight prayer)	About an hour after sunset, up to the dawn	17(7+10)

(The above is according to the Sunni Hanafi way; the other schools may have slight differences; but the general pattern is the same.)

Second, it is obvious from the above that a total of 24 units are for the day prayers and 24 for the night. The number of *fard* units is 10 each for the day and the night.

Third, the **number of units in the prayers generally depends on the amount of physical activity in the period before that prayer.** In *Fajr*, there are only 4 units. The emphasis in *Fajr* is on recitation of long *surahs* (recited loudly in the congregational prayers); this means that one stands for a longer period of time. As the brain is already fresh after the night rest, the standing is longer compared to the time taken by *Sajdahs* (prostration). *Zuhr* prayer is offered after a relatively longer period of physical and mental activities, as it is the prime time of work, and therefore involves much greater number of units, that is 12. In this prayer, rhythmic movements are much more essential than standing. The pattern followed therefore is to recite shorter *Surahs* silently. In the *Asr* prayer, 8 units are offered, which again are broadly proportional to the period between *Zuhr* and *Asr*. The same is true for *Maghrib*. Now the people have returned from their works, so *surahs* are recited loudly. In *Isha*, the number of units is maximal, as it is at a time when man can offer long prayers after a long day of activities. This also covers the period that will be spent in sleeping. A long prayer with a number of *sajdahs* and *qayams* will remove all the wear and tear from the body, the muscles and joints will relax, and the person will enjoy a sound and comfortable sleep.

Fourth, *Salaat* is also a very good **exercise for the eyes.** Eyes have been naturally formed in a way that they can rapidly adjust to see the near and distant objects. This is called **Accommodation Power** and is obviously an invaluable tool in the human weaponry. The Eyeball has the ability to turn up and down and right and left. These movements are controlled by various muscles of eyes, the chief ones being superior rectus, inferior rectus, medial rectus, lateral rectus, inferior and superior obliques, dilator pupillae and constrictor pupillae. When the eyes are focussed on a near object, one set of muscles constricts changing the shape of the lens, which makes it able to see the object. When the eyes are focussed on a distant object, another set of muscles performs the opposite action. During the prayers, these movements take place repeatedly one after the other. When a person stands, his eyes are focussed on the earth, which means a distance of 5-6.5 feet depending upon the height of the man. When he bends in *Ruku*, the distance becomes almost half. When he stands again and goes for the *Sajdah*, the distance of the object changes from around 5.6 feet to a few inches. When one sits and then goes to the *Sajdah* again, the distance of the object varies from around 3 feet to a few inches. Thus the eyes are frequently changing from positions of full convergence to half convergence to Full divergence, and the vice versa. This is sure to strengthen the Power of Accommodation of

the eyes to a great degree. The oblique, adductor and abductor muscles are also brought into action in the prayer and the turning of the neck right and left at the end of the prayer.

Fifth, while standing, the feet should be kept neither too close nor too far. A distance of about one-foot is an ideal position of the feet, as it helps in proper distribution of weight on different bones. This is because it is in this position that the maximum part of the sole of the foot is in contact with the earth.

It can be seen that 48 units in 5 prayers a day will **involve 96 sajdahs, 48 rukus, 48 qayam (standing) and 25 sitting positions. 34 salams** (turning neck right and left). It also involves **18 movements on the elbow joint (Takbeer), this number being much greater in shafai and shia schools, 248 movements (flexion and extension) of hip joints and at least 96 movements of the knees.** These are approximate numbers. (Any error of calculation if there is regretted.) With these kinds of figure, the net impact on the physical, mental and spiritual health of the individuals has to be tremendous. But it must be clarified that the basic aim of the prayers is not body building; Prayers are meant for proximity with God, but God has been kind enough to design a scheme of prayers that also cause huge physical and mental benefits.

## 2) Wudhu: The Cornerstone of Hygiene

If one single word can sum up the purpose of Islam, God's System for the World, it is Peace. Islam aims at achieving peace at every level – Physical, mental, spiritual, family, social, in this world and in Hereafter. If one single word can sum up the methodology for achieving Peace, it is *Taharah* (Purity of Hygiene) – Physical, mental, sexual, spiritual, and social – both of the individual and system. Ghusl (Washing of the whole body) and Wudhu (Washing of certain portions of the body) can be regarded as the first chapters in the book of Hygiene. Wudhu is special because it starts the process of Islamic Prayer, which is central to the whole scheme of things in Islam, the first manifestation of man's total submission to God and His System. Wudhu is no ordinary way of purification either. As will be seen in this feature, it is a meticulously designed exercise by the Supreme Designer of the Design of the Universe, which is extremely useful in keeping human beings clean, healthy and peaceful, individually and socially. It refreshes man after sleep, refurbishes him after work and prepares him for God's blessings, which come in many shapes – freedom from a number of illnesses, mental and spiritual peace and freedom from Failure in Hereafter. IMW presents here two sides of Wudhu: the Theological and Medical.

### Wudhu: The Theological Side

([Arabic](#): [عوضو لا](#) **al-wuḍū'**,

[Persian](#): [آب د ست](#) **ābdast**,

[Turkish](#): **abdest**,

[Urdu](#): [وضو](#) **wazū'**)

Wudhu in the Arabic Language: Wudoo is the action, and wudhu the water used. Therefore - and it is also a verbal noun; or they are two forms of the same word, both meaning the verbal-noun and maybe both referring also to the water used.

Qur'an says "For Allah loves those who turn to Him constantly and He loves those who keep themselves pure and clean."

"Which none shall touch but those who are clean"

Muhammad(PBUH) said that "Cleanliness is half of faith", which means that *Iman* without *Taharah* is incomplete. And if *Taharah* is the keyword not just for the physical aspect of the individual but also his spiritual side and the *Taharah* of System, the whole Islam is about *Taharah*. When Prophet says, it is "half" of *Iman*, it probably means that even total *Taharah* of individuals, society and system without having total conviction about God being the Only Lord of the Universe is not going to help. *Taharah* is must, but man must embrace *Taharah* because God loves *Taharah*. And whatever God loves is ultimately for the benefit of mankind. Wudhu is the first step in the Islamic Obligatory Exercise of Prayer and means washing parts of the body using water.

Qur'anic mandate for Wudhu comes frp, the following verse:

"O ye who believe! When ye prepare for prayer, wash your faces, and your hands to the elbows; moisten your heads and your feet to the ankles. If ye are in a state of ceremonial impurity, bathe your whole body. But if ye are ill, or on a journey, or one of you comes from offices of nature, or you have been in contact with women, and you find no water, then take for yourselves clean sand or earth, and rub therewith your faces and hands, Allah doth not wish to place you in a difficulty, but to make you clean, and to complete his favour to you, that you may be grateful.

### **Wudu is allowed with the following water**

- Rain water
- Well water
- Spring, sea or river water
- Water of melting snow or hail
- Water of a big tank or pond

### **Wudu is not allowed with the following types of water**

- Unclean or impure water
- Water extracted from fruit and trees
- Water that has changed its color, taste and smell and becomes thick because something was soaked in it
- Small quantity of water in which something unclean has fallen, eg. urine, blood, stool or wine or some animal had died after falling into it
- Used water of **Wudu** or [Ghusl](#)
- Water left over after drinking by haraam animals, eg. dogs, pigs or animals of prey
- Water left by a person who has just drunk wine is unclean

### **PERFORMANCE OF WUDHU ACCPRDING TO SUNNIS**

- Washing the hands three times up to the wrist; the right hand first and then the left and wash them in such a way that no spot is left dry;
- Rinsing and gargling the mouth three times;

- Washing the nose into three times;
- Washing the face beginning from the forehead to the bottom of the chin, three times;
- Washing the forearms including the elbows three times;
- Wiping wet hands over the head from front down to the neck, then running the thumbs around the ears and wiping the inside;
- Wiping the neck with the back of wet hands;
- Washing the feet including the ankles three times. The right foot first and then the left unless socks are worn.

In case if the socks are put on after an ABLUTION (WUDHU) is made, then during the next 24 hours, it is enough to pass wet fingers over them in making an ABLUTION instead of having to wash the feet each time, provided these have not been taken off during this period of time. If someone on journey, the traveler can make MASSAH i.e. passing wet fingers over socks up to three days.

## Performance of wudu according to [Shia Muslims](#)

Wudu must be performed on the skin except in the case of the wiping of the head (unless there is an obstacle that isn't naturally there, such as a [combover](#)). If there are bandages stopping one from wiping the skin of the arms, face, etc., then it is permissible to wipe the bandage.

1. Make the intention to perform wudu in the heart.
2. Shape the right hand like a cup and take water into it. Afterwards, pour the water on the top of the forehead and wipe down with the right hand. It is obligatory to wash from the area where the [hair normally grows](#) to the chin.
3. Shape the left hand like a cup and take water into it. Afterwards, pour this water onto your right [forearm](#) and wash your right forearm (covering the right forearm in water, leaving no spot dry). Wipe from the elbow to the fingers, and not from the fingers to the elbow.
4. Repeat this process except with the left [forearm](#).
5. Without taking more water, wipe your hair from the middle down to the [forehead](#), or vice versa, using the index finger of your right hand; it is [mustahab](#) to use three fingers. If you are [balding](#), you would wash your hair as if it were growing when you had a full head of hair. It is not permissible to wipe the hair over an obstacle (such as wiping a hat or a [turban](#) instead of the hair/skin). It is not obligatory to wipe the actual skin on the head. If, however, the hair isn't growing from the area you are wiping (such as if you have a [combover](#)), then you must move the hair to where it belongs and wipe the skin.
6. Without taking more water, wipe the top of your right foot with your right hand. You only wipe once and with a swiping motion. It is unallowed to wipe the shoe, sock, etc. You MUST wipe the skin of the feet unless there is an extreme reason.
7. Do the same thing, except using your left hand and wiping your left foot.

Notes: 1. Shias normally wash feet and let them dry before beginning the formal Wudhu 2. According to [Ali](#) and the other [Imams](#) there are [Mustahab](#), or recommended actions to wudu which include :Washing the hands twice; Gargling the mouth three times; Rinsing the nose three times; Washing the face twice and the arms twice. It should be noted that it is not permissible to wipe the head and the feet twice (unless it is because one missed a spot) and that it is not permissible to wash the face and the arms three times.



### The following things lapse or brake the Wudhu

Answering the call of nature

Passing the water

Passing the wind

Sleeping or dozing off while leaning against a support

Unconsciousness

Injury

Drawing blood

Vomiting

## ***Tayammum***

Tayammum is a "dry ablution" using clean soil, rock, or sand and is to be performed when water is not readily available to perform ablution or when one is defiled (on *janabah*) and could not perform *ghusl* (see [\[1\]](#)). Tayammum can be performed in three conditions:

1. water is not available at all
2. water is available, but only enough for drinking
3. water is contaminated

## **Some important Ahadith regarding Wudhu:**

Abu Hurairah (radhiAllaahu'anhu) said: Rasoolullah (sallallaahu 'alaihi wa sallam) said: The Prayer of anyone of you breaching purification is not accepted unless he makes wudoo. [Al-Bukhaaree, (Fath ul-Baaree, 1/206), Muslim (no.225) and others].

Ibn 'Umar (radhiAllaahu 'anhumaa) said: Indeed I heard Rasoolullah (sallallaahu 'alaihi wa sallam) say: Allaah does not accept Prayer without purification, nor Sadaqah from illegally attained wealth. [Muslim (1/160) and others].

Rasoolullah (sallallaahu 'alaihi wa sallam) himself explained in the hadeeth narrated by 'Umar (radhiAllaahu 'anhu) in the Sahihain Verily the actions are by intention and there is for everyone only what he intended... [Fath-ul-Baaree, 1/9, and Muslim, 6/48]. At-Tasmiyyah (Mentioning Allaah's Name)

Abu Hurairah (radhiAllaahu' anhu) said that Rasoolullah (sallallahu 'alaihi wasallam) said There is no wudoo for him who does not mention Allaah's name upon it. [Reported by Ibn Maajah (no.399), At-Tirmidhee (no.26), Abu Dawood (no.101) and others. Ash-Shaikh al-Albaani says: hadeeth Saheeh (Saheeh ul-Jaarni', no.7444)].

Humraan (radhiAllaahu'anhu) narrates that 'Uthmaan called for water to make wudoo and washed his hands three times... then said: I saw Rasoolullah (sallallaahu 'alaihi wa sallam)make wudoo just as I have made wudoo . [Al-Bukhaaree and Muslim, and as preceded].

And in the hadeeth of Abdullaah ibn Zaid (radhiAllaahu'anhu) he was asked about the wudoo of the Prophet (sallallaahu 'alaihi wa sallam), so he called for a bowl of water and made wudoo from

it as the Prophet (sallallaahu 'alaihi wa sallam) made wudoo, and he poured out water from the bowl upon his hand and washed it three times. [Al-Bukhaaree (al Fath, 1/255), Muslim, 3/121].

Aus ibn Abi Aus reports from his grandfather (radhiAllaahu 'anhu) who said: I saw Rasoolullah (sallallaahu alaihi wa sallam) make wudoo washing his hands three times. [Ahmad (4/9), An-Nasaa'ee (1/55) - with saheeh isnaad].

'Abdullaah ibn Zaid al-Ansaaree said that it was said to him: Perform for us the wudoo of Rasoolullah (sallallaahu 'alaihi wa sallam), so he called for a pot of water. Until he said: So he washed his mouth and nose with a single handful and did that three times. [Al-Bukhaaree and Muslim].

In the hadeeth of 'Amr ibn Yahyaa (radhiAllaahu 'anhu) he said: And he washed his mouth and nose using three handfuls of water. [Muslim, 3/123].

Al-Imam an-Nawawi says: And in this hadeeth is a clear proof for the correct opinion that the sunnah in washing the mouth and nose is that it should be with three handfuls of water - washing the mouth and nose [together] with each of them.

Abu Hurairah (radhiAllaahu'anhu) narrates that the Prophet (sallallaahu 'alaihi wa sallam) said When one of you makes wudoo then let him enter water into his nose, then expel it. [Al-Bukhaaree (al-Fath, 1/229), Muslim (no.237), Abu Dawood (no. 140)].

in the hadeeth of Laqeet (radhiAllaahu 'anhu) who said: O Rasoolullah (sallallaahu 'alaihi wa sallam), inform me of the wudoo . He said Complete the wudoo and rub between the fingers and exert in breathing in the water into the nose unless you are fasting. [Abu Dawood, no.142; At-Tirmidhee, no.38; An-nasaa'ee, no.114; IbMaajah, no.407; and others]. (Declared as saheeh by Ibn Hibbaan and al-Haalcim, and adh-Dhahabee agreed to that. Also declared as saheeh by Ibn al Qaataan, An-Nawawi and Ibn Hajr. Refer to the footnote in al-Baghawi's Sharh us-Sunnah: 1/417

'Abd Khair said: We were sitting looking towards 'Alee - as he made wudoo - and he entered into his mouth a handful of water with his right hand and washed his mouth and nose, then expelled it from his nose with his left hand - he did that three times, then said: Whoever would like to see the way of purification of Rasoolullah (sallallaahu 'alaihi wa sallam) - then this is his purification. [Reported by ad-Daarimee. Ash-shaikh al-Albaanee says in his notes on al-Mishkaat: Its isnaad is saheeh].

From 'Abdullaah ibn 'Amr - about the way of performing wudoo - he said: Then he (sallallaahu 'alaihi wa sallam) wiped his head and entered his two forefingers into his ears and wiped the backs of his ears with his thumbs. [Reported by Abu Dawood (no.135), an-Nasaa'ee (no.140), Ibn Maajah (no.422) and authenticated by Ibn Khuzairnah].

Ibn 'Umar (radhiAllaahu 'anhumaa) said: Rasoolullah (sallallaahu 'alaihi wa sallam) fell behind us and then came upon us during a journey, then we found him and it was time for 'Asr - so we began to make wudoo and wipe over our feet, so he (sallallaahu 'alaihi wa sallam) called out at the top of his voice Woe to the ankles from the Fire. (two or three times) [Al-Bukhaaree (al Fath, 1/232) and Muslim, 3/128].

'Abdullah b. 'Amr reported: We returned from Mecca to Medina with the Messenger of Allah (may peace be upon him), and when we came to some water on the way, some of the people were

in a hurry at the time of the afternoon prayer and performed ablution hurriedly; and when we reached them, their heels were dry, no water had touched them. The Prophet (may peace be upon him) said: Woe to (dry) heels, because of Hell-fire. Make your ablution thorough.

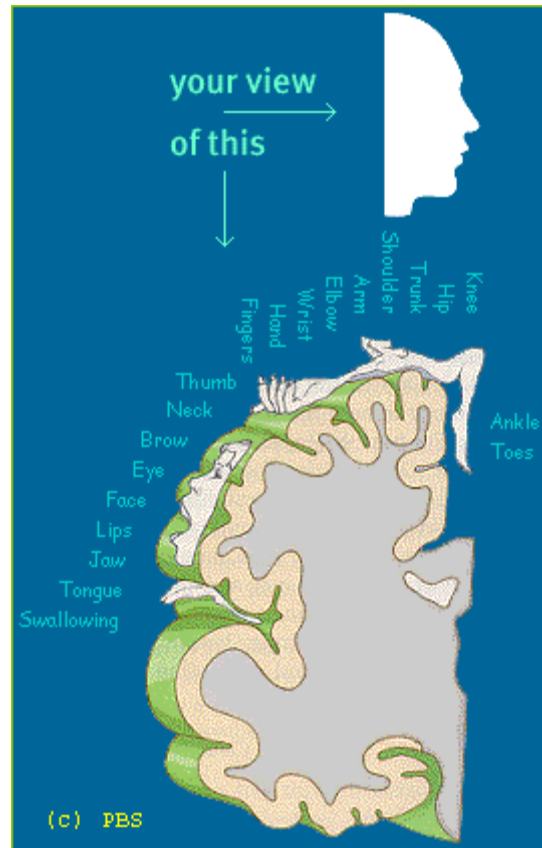
( Muslim Book 002, Number 0468)

## Wudhu: The Medical Side

**Islamic prayer (Salaat)** is preceded by **Wudu** , a process by which the organs of the body are washed and rubbed (with a moistened hand) in a certain fashion. The Quran says:

*“O believers! When you prepare for prayer, wash your faces and your hands to the elbows; and Rub your heads and your feet to the ankles. If you are in a state of ceremonial impurity, bathe your whole body. But if you are ill, or on a journey, or one of you comes from offices of nature, or you have been in contact with women, and you find no water, then take for yourselves clean sand or earth, and rub therewith your faces and hands, God does not wish to place you in a difficulty, but to make you clean, and to complete his favour to you, so that you may be grateful.” (Chapter 5, Verse 6)*

The Quran only describes the general order. We are made aware of the details in the traditions of Prophet Muhammad (PBUH). A very specific order of washing the organs is followed. First, (after washing the hands to ensure that no dirt goes along with the water) mouth is cleansed, taking the water inside mouth and rinsing three times. Then the water is pushed into nostrils. After this the whole face is washed with both hands from the forehead to the chin. This is followed by the washing of hands, from hand to elbow (hands, forearm and elbow). All these actions are preferably repeated thrice. After washing the hands and forearm, one again returns to the head, passing a moistened hand over the head (also behind the ears and neck in Sunni school of thought). Lastly, feet are either washed (Sunni school of thought) or rubbed with moist hands (Shiite school of thought) three times. This sequence is extremely significant. When I was studying in my second year of MBBS at KG Medical College, Lucknow, I was struck with amazement when I studied the sensory and motor maps inside the brain. There are different regions in the brain, which have a distorted-looking map of the body on it. Each area of the body is represented on a specific place in the brain. Sensory map is situated on a portion of the brain called postcentral gyrus. (See the anatomical diagram of the sensory area on the postcentral gyrus.)To my wonder, I found that the sequence of washing and rubbing of different organs in *Wudu* almost exactly follows the sequence on this map. I made further researches and then wrote a paper, “*Wudu: A Medical Analysis*”, which was published way back in 1978 in the Eid Special Issue of *Radiance*. This was reproduced again several years later by *Kuwait Times*, which though unfortunately did not carry my name as the author. I also published a book in Urdu in 1990, which described parts of that paper.

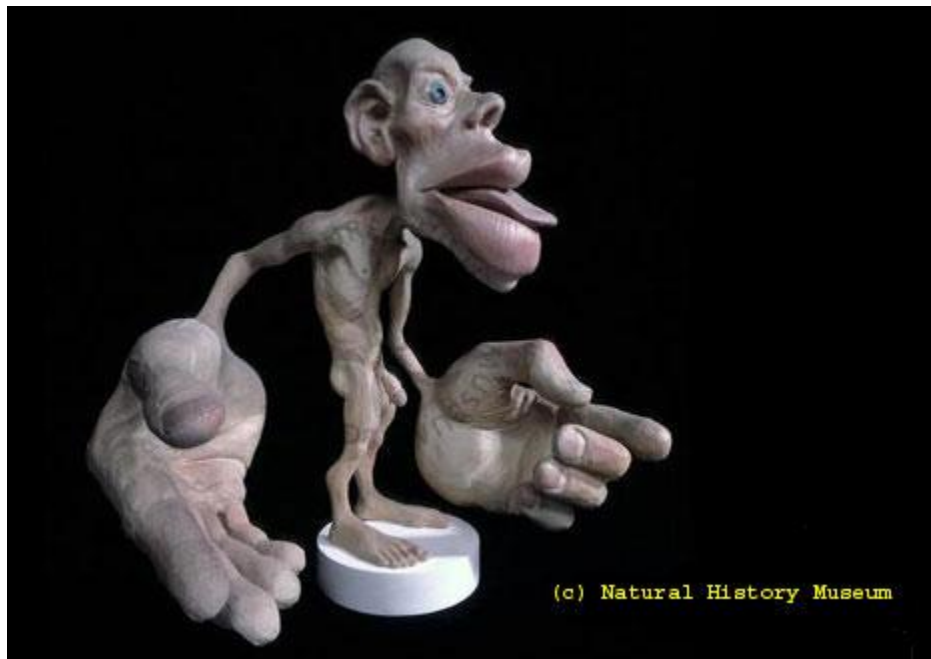


Brain is the organ of the body that controls various functions of the body. Apart from performing functions such as thinking, learning etc, it receives different types of sensations such as cold, touch and warmth; it analyses them so that the body can be able to give a proper response to each one of them. Brain consists of several parts such as cerebellum, cerebrum, thalamus, medulla oblongata, pons etc. The brain substance consists of **grey and white matters**. Cerebral hemisphere is the seat of higher functions. It is also the final centre for the reception of all types of sensations and consists of frontal, parietal, occipital and temporal lobes. It has been found that the cerebrum has got a peculiar cortical organisation. Several workers like Fulton, Woolsey, Marshall and Bard have written in detail about it. A specific bit of the substance of the brain receives sensations from a specific portion of the body. Using various techniques including electrical stimulation, the projection of the body surface has been mapped on the postcentral gyrus, a portion of Cerebrum, and it has been seen that the projection is in the following order (from below upwards) (Note that the images are reverse in the brain.):

- Intrabdominal
- Throat and inside of mouth
- Tongue
- Teeth, gums and jaw
- Lower lips, lips and upper lip
- nasal passage
- nose
- eye
- forehead
- cheek, ear, chin,
- thumb, and other fingers
- hands

- Wrist
- Forearm
- Elbow
- Arm
- Shoulder
- head
- Neck
- Trunk
- Hip
- Leg, toes and foot

The Scientists are of the opinion that this extensive coding system has certainly to do a lot with the various sensations of the body. Loss or diminution of the function causes the degeneration of the part of the brain associated with that function. Some bands known as **psychic bands** surround the sensory, visual and auditory areas. Their lesions cause the inability to perceive the objects, so they are said to combine the sensory impression into significant patterns.



(The above diagram represents the mini-man on the map at postcentral gyrus in accordance with the sensitivity of different organs. It can be seen that organs washed or rubbed in *Wudu* cover almost 80% of the total surface of the image in the brain.)

The researches on that map have since then grown substantially. Now a term “**Homunculus**” is being used to describe that map, and has become a topic of huge interest. Homunculus means a tiny man within man, which controls him. It is important to note that

1. The mapping is **not in the order like head, face, trunk, hands, foot etc, but according to the spinal enervation**. So is the order in the *Wudu*.
2. Mouth is rinsed first and the face is washed later. This is exactly the sequence the homunculus shows.

3. Again, **instead of rubbing head along with the face, hands and forearms are washed first and then head is rubbed.** This again is according to the sequence shown in the map.
4. In *Wudu*, **first, hands are washed followed by wrist, forearm and elbow.** Homunculus again depicts the same sequence, not from elbow to hand.
5. It is also highly significant that Homunculus, the mini man on the map, is a **highly distorted image** of man. This is because the representation of different organs on the map is not in accordance with what the human image is but in accordance with the sensitiveness of different organs in the brain. Thus the mini-man has very big lips, very big hands, face and feet. The portion from the neck to the legs occupies hardly 15-18 per cent of the mini-man. **This means that by washing only certain portions in the Wudu, one activates almost the entire mini-man inside the brain.**
6. There are very specific cortical paths, which also explain why the **face is washed simultaneously with both hands while other left and right extremities are washed one after another.** This is because both the parts of the face, right and left, are represented in both portions of the brains. In contrast, extremities are only represented on the opposite side.
7. The head and feet are extremely sensitive superficially, so mere rubbing of them would also serve the purpose of activating the brain.
8. The homunculus plays an extremely significant role in **temperature control mechanism** of the body. In the events of the infarction of this area of the brain, there are huge temperature regulation failures on the corresponding sides of the body.
9. The cortical area covered by the hands is one of the largest. If the more sensitive areas are stimulated first, they can immediately call the body to bring out proper responses. For example if the hands are put into cold water, the blood vessels may constrict resulting in decreased loss of heat from the body. Though in *Wudu*, the first portion to be washed is mouth, hands are washed before that to ensure that the water does not become dirty. In doing so, the brain also gets acclimatised to the warmth of the water.
10. As is seen in the picture of mini-man as mapped in the brain, hands and face occupy the largest portions and cover more than **70% of the total area.** By rubbing these portions therefore, as in *Tayammum*, too, a very significant portion of the brain is activated. (In *Tayammum*, which is done in absence of water, hands and face are rubbed with sand or soil.)
11. In *Wudu*, only those parts are washed or rubbed, which are normally exposed to atmosphere and are easy to wash. In *ghusl* (bathing), the whole body is washed, and Islamic *ghusl* again follows the pattern in the homunculus.

## Medical benefits of *Wudu*

We have just seen how **almost 80% of Homunculus, the mini-man controlling the man from inside the brain gets activated.** This substantially increases the ability of the brain to respond to the different kinds of sensory stimuli, particularly heat and cold. As several kinds of psychic bands are also situated along with these sensory areas, the *Wudu* also increases the capacity to face different psychological situations. ***Wudu* is extremely beneficial** in many other ways.

1. It helps in **countering the skin cancers.** According to WHO, there are an estimated **10 million cases** of malignant melanoma (the most dangerous form of skin cancer) annually, and an estimated 66 000 deaths from malignant melanoma and other skin cancers every year. In Norway and Sweden, the annual incidence rate for melanoma is estimated to have more than tripled in the last 45 years, while, in the United States, the rate has doubled in the last 30 years. Worldwide, the incidence of melanoma varies more than 150-fold. The highest rates are found mainly in those nations where people are fairest-skinned and where the sun tanning culture is strongest: Australia, New Zealand, North America and Northern Europe. One in

three cancers worldwide is skin-related; in the United States, that figure is one in two. There are an estimated 1.1 million annual cases of skin cancer in the United States. The melanoma cancers particularly affect the white people, while non-melanoma cancers affect both whites and blacks. It is now well known that (1) continuous exposure to sun light is the chief factor in melanoma cancers; and (2) the exposure to industrial pigments like petroleum products and tannin, etc, along with sweat further accentuates the risk of skin cancer on exposure to sun. If there is a gap of shelter away from the sun for a certain period of time, the chances of Skin cancers would decrease remarkably. If exposed organs are recurrently washed or wiped, this would wash away the harmful chemicals that gather on the skin. This will substantially reduce the risks of skin cancers. Prayer preceded by **Wudu achieves both these objectives**. There are two breaks for the prayer in the most harmful period of the day. The first, known as *Zuhr*, is immediately after the midday. This prayer is the second longest among all prayers. The *Wudu* involving washing of face and arm and the wiping of head and feet (washing among sunnis) will ensure removal of dust, sweat and chemicals from the exposed portions. The *Wudu* followed by a long prayer under a shelter will ensure a shelter for the skin. There is very little to doubt that the chances of skin cancer will remain extremely low among those Muslims who regularly offer prayers at the prescribed times.

2. The recurrent washing of the skin and the removal of sweat, dust and other chemicals will also decrease the chances of infective and allergic disorders of the skin. These include furuncles, pyomas, deep-seated abscesses, rashes, allergic dermatitis, etc.
3. **Oral Hygiene** is another important result of the *Wudu*. The rinsing of the mouth and the brushing of teeth (*miswak*) are sure to cause a substantial decrease in all the diseases of the mouth, teeth and gums. The Prophet said: ***"If I had not thought this to be an unbearable hardship for my followers I would have prescribed the use of Miswak before every prayer."*** (Bukhari, Muslim)". It was narrated by the Lady Aisha (RA) that the Prophet (SA) said; ***"Miswak is purification of mouth and gratification to the Lord."***

On the basis of the worldwide medical studies, it can be noted that

- According to the epidemiological estimates, **more than half of all adults have at least the early stages of the gum diseases.**
- It has also been shown that more than **90% of all people develop gum disease** at some part of their lives.
- The risk becomes **greater in Diabetics, drug addicts and alcoholics.**
- The disease of gums and teeth are now known to have caused systemic disorders like atherosclerosis, Subacute Bacterial Endocarditis and Glomerulonephritis.

When a person eats some item of food and does not rinse his mouth immediately, the food stuck in between the teeth and gums becomes a favourable culture medium for the germs to grow. These germs start affecting the gum first. It begins with a **plaque**, which is a sticky film of food, saliva and germs. If this plaque is not regularly removed through brushing and rinsing, they settle in the gum lines making them tender and swollen. Later, the plaque starts hardening into **tartar**. If plaques and tartars are not removed gums start bleeding, even with a gentle touch. This stage is called **Gingivitis**. Its severer form is called **Peridontitis**. At this stage, gums begin to pull away from teeth. The pus starts collecting in the pockets. It may then affect the teeth and the bone around it. This ultimately leads to several diseases including what is commonly known as Pyorrhoea. Other infective diseases of teeth are common outcomes with the decaying of teeth. Sometimes the **abscesses** become deep seated requiring surgical interventions. The more the food

particles are allowed to stay the more the likelihood of the infections developing is. If the mouth is rinsed regularly, the chances of infection definitely decrease. *Wudu* five times a day at regular intervals will surely cause a marked reduction in the probability of the infection developing. And if this is associated with the brushing of teeth, either by the traditional *miswak* or its modern counterparts of toothbrush and toothpaste, proper mouth hygiene is maintained at the desired level to a large extent.

Recent evidences prove that the oral cavity infections can cause severe systematic diseases, which often threaten life. Periodontal disease permits organisms to enter deep systemic tissues, such as the carotid atheroma. Genco (2002) has shown an association between periodontal pathogens, such as *Porphyromonas gingivalis*, and atherosclerosis because of the pathogen's possible direct effect on atheroma formation. *P. gingivalis* has also been found in carotid and coronary atheromas. It may also invade and proliferate within heart and coronary artery endothelial cells, and may also induce platelet aggregation associated with thrombus formation. Oral microorganisms may also enter the deeper tissue after trauma or surgery, and may even cause Bacterial Endocarditis.

Periodontitis has recently been shown to be associated with atherosclerosis and coronary heart disease. . According to Herzberg, (1983), the bacteria like *S. sanguis* and *P. gingivalis*, found in dental plaque may induce platelet activation and aggregation through the expression of collagen like platelet aggregation-associated proteins, playing a role in the formation of atheroma and thrombosis. Atherosclerosis may lead to heart attacks and cerebrovascular accidents causing Paralysis.

#### Miswak

*Miswak* has rightly been described as **Natural Toothbrush**, which is in use by Muslims for centuries as an effective method of maintaining oral and dental hygiene. A miswak is typically made of the twigs of a tree with botanical name as *Salvadora persica*. But other trees are also used including arak tree, peelo tree, olive and walnut. It strengthens teeth and gums, removes bad odour and protects teeth and gums against infections. A study by Al-Otaibi M, Al-Harthy M, Soder B, Gustafsson A, Angmar-Mansson B (2003) concluded that *miswak* was a better protector of oral hygiene than the ordinary toothbrushes. The World Health Organisation too recommended the use of *Miswak* in its consensus reports published in 1986 and 2000. Plants contain phytochemicals such as alkaloids, tannins, essential oils and flavonoids, which have pronounced antimicrobial activity. A study by Almas, K. (Aug 2002) concluded that that *Salvadora persica* extract is somewhat comparable to other oral disinfectants and anti-plaque agents like Triclosan and Chlorhexidine gluconate.

4. ***Wudu* has also a very direct relationship with the practice of *Istanja*, a process in which genitals are washed after urinating.** If the drops of urine remain on the body, it signals an impurity, which must be removed as a precondition for the *Wudu Istanja* should be performed after each act of micturition, but if one could not do it due to some reason, one must wash the area before starting the *Wudu*. Unfortunately, I could not find any statistics related to the beneficial effects of *Istanja*, these can be taken to show the beneficial effects, as a foregone conclusion. I am planning to start these studies soon. It can be easily proved that there is a direct link between *Istanja* habits and the urinary tract Infections. The urinary tract infections are one of the third common infections along with Respiratory Tract Infections and Gastrointestinal Tract Infections. These infections may lead to severe burning in urination, difficulty in urination, fever, ultimately leading to the swelling and damage to kidney. Sexual intercourse is one of the common routes of



these infections and the chances of transfer of bacteria increase if both or one of the partners do not perform *Istanja*. Washing immediately before and after intercourse is also helpful in preventing urinary and sex related diseases, but regular *Istanja* by both men and women can be proved to be a much more effective way.

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