

# Implanting Smart Chips in Human Bodies: Islamic Jurisprudential and Ethical Grounds

## *Invited Keynote*

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*All Protocols duly observed.*

May Peace, Mercy and Blessings be upon you!

I begin by commending the organisers of this Second International Conference under the patronage of H.H. Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs, and the Chairmanship of Shaykh Abdullah Bn Bayyah, Chairman of the UAE Council for Fatwa. No doubt, the title of the conference, **“Towards Sharī‘a Conceptualisation of Scientific Developments: Civilisational Methodology, Real-World Applications, and Ethics of Sustainability”**, is most appropriate and timely.

Before I proceed, please permit me to reiterate my heart-felt appreciation for the warm, brotherly, and hospitable reception accorded to us since our arrival in the city of Abu Dhabi. *Jazakumullahu khairan, ahsanallahu ilaikum!*

After that, it is my pleasure to stand before you today to deliver this keynote speech on **Implanting smart chips in human bodies: Islamic jurisprudential and ethical grounds**, holding at this beautiful and historic city of Abu Dhabi, United Arab Emirates.

Smart chips, also known as implantable or biochips, are a diverse category of devices designed for implantation within the human body. They serve various purposes, from monitoring health and augmenting physical abilities to enhancing communication and security. Smart chips that can be implanted in the human body include the following:

a. **Neurological implants:**

These chips are implanted in the brain or spinal cord and can be used to control prosthetic limbs, restore lost senses, or treat neurological disorders.

b. **Cardiac implants:**

These chips are implanted in the heart and can be used to regulate the heartbeat, monitor blood pressure, or treat heart failure.

c. **Ocular implants:**

These chips are implanted in the eye and can be used to restore vision, correct color blindness, or provide augmented reality features.

d. **Dermal implants:**

These chips are implanted under the skin and can be used to store medical information, track fitness, or make contactless payments.

e. **Birth Control Implants:**

These microchip contraceptive implants release hormones into the body over an extended period to prevent pregnancy. They can last for several years.

The number of people with smart chips implanted in the world is increasing rapidly. According to a report by MarketsandMarkets, the global market for smart chips in healthcare is expected to grow at a compound annual growth rate (CAGR) of 25.7% between 2020 and 2025. This growth is driven by the increasing demand for smart chips in healthcare, as well as the growing awareness of the potential benefits of smart chips in improving healthcare outcomes.

Another report by ResearchAndMarkets estimates that the global market for smart chips in healthcare is expected to reach \$1.2 billion by 2026, growing at a CAGR of 22.2% between 2021 and 2026.

The majority of people with implanted smart chips are located in Europe and North America. However, the technology is becoming increasingly popular in other parts of the world, such as Asia and Latin America.

As the technology continues to advance and receives wider acceptance, it is essential to engage in ongoing dialogue within the Islamic community to ensure that adoption of these innovations aligns with religious values and ethical norms.

### **Islamic Perspectives**

Smart chips have the potential to enhance human capabilities and quality of life. However, such advances necessitate an examination of their compatibility with Islamic jurisprudential principles and ethical norms, like the following:

- a. The principle of necessity
- b. Consent
- c. Harm minimisation
- d. Enhancement vs Modification (*Tahsin vs Taghyir*)

**Necessity**-- Islamic teachings emphasise the preservation of one's health (*Hifz al-sihhah*) as a fundamental duty. The principle of necessity requires that the medical treatment or implant be necessary towards achieving the fundamental duty of *Hifz al-sihhah*.

**Consent**—Consent requires that the patient gives informed and voluntary consent to the medical treatment or implant.

**Harm minimisation**—this requires that the medical treatment or implant be done in a way that minimises harm to the patient.

***Tahsin versus Taghyir***--Islamic ethics differentiate between enhancement (*Tahsin*) and modification (*Taghyir*). While enhancement is often encouraged, radical modification

of one's physical or mental state may raise ethical concerns. The implementation of smart chips should also be assessed in this light.

### **Ethical Considerations**

The use of implantable smart chips raises several ethical concerns, including the following:

- i. Security and Privacy.
- ii. Bias
- iii. Harm
- iv. Impact of implantable technology on society

**Security and Privacy**—The ability of smart chips to monitor and control various functions in the human body raises concerns about the privacy of the patient's personal information. The use of smart chips in human body can lead to identity theft, risk to human freedom and autonomy, etc.

Implanting chips in humans has privacy and security implications that go well beyond cameras in public places, facial recognition, tracking of our locations, our driving habits, our spending histories, and even beyond ownership of your data.

Cybernetics scientist Dr Mark Gasson of the University of Reading, in Britain, became the first human to be infected with a computer virus, after he injected himself with a microchip in 2009 to control electronic devices in his office. The virus was replicated on the swipecards of staff accessing his building and infected the university's database.

**Bias**—Smart chips can be programmed to make decisions based on certain criteria, which can lead to bias if the criteria are not carefully selected. The use of smart chips in healthcare must be done in a way that minimises bias and ensures fairness.

**Harm**—The use of smart chips in healthcare also raises concerns about the potential for harm to the patient. Smart chips can lead to 'hacking the body' or biohacking. There are also safety risks of using tiny chips inside human body including infection risks and corrosion of the chip's parts.

**Impact on society** – The implantation of smart chips in human bodies could lead to a more surveillance-oriented society, or it could lead to a more divided society, with those who have implants being given preferential treatment.

Experts say Governments or large corporations would have the ability to track people's actions and movements, categorise them into different socio-economic, political, racial, religious or consumer groups and ultimately even control them.

According to a recent survey of employees in the United States and Europe, two-thirds of employees believe that in 2035, humans with chips implanted in their bodies will have an unfair advantage in the labor market.

### **Islamic Jurisprudential Recommendations**

The fourth industrial revolution era gave birth to disruptive or emerging technologies including artificial intelligence, biotechnology, nanotechnology, big data analytics, datafication, cybersecurity, etc. The implantable smart chips are also part of this revolution.

As Muslims, we must believe that Allah is the source of all aspects of knowledge, technology or otherwise. Religiously, technology is not harmful in itself, so its permissibility or otherwise depends on the way it is deployed.

Allah (SWT), the source of knowledge, says in **Surah Al-Baqara, Verse 31**:

وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ

*And He taught Adam all the names, then presented them to the angels; then He said: Tell me the names of those if you are right.*

According to the Sahabi Abdullahi bin Abbas (RA), the knowledge that Allah gave to Adam, "وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا", is the knowledge we inherited since then.

To provide an Islamic jurisprudential opinion on whether smart chips in human bodies are permissible or not, I categorise the purpose of use into two parts:

1. **Use of smart chips in human body for mere luxury and socialization without any sickness or necessity.** In such situations, avoiding the use of the chips is better for the following reasons:

Allah has created us and perfected our creation, as in **Surah At-Tin, Verse 4:**

لَقَدْ خَلَقْنَا الْإِنْسَانَ فِي أَحْسَنِ تَقْوِيمٍ

*Certainly We created man in the best make.*

The phrase “أَحْسَنِ تَقْوِيمٍ” is *mubalaga* for extreme beauty and perfection.

Furthermore, human beings are the most honoured among Allah’s creation, as Allah says in **Surah Al-Isra, Verse 70:**

وَلَقَدْ كَرَّمْنَا بَنِي آدَمَ وَحَمَلْنَاهُمْ فِي الْبَرِّ وَالْبَحْرِ وَرَزَقْنَاهُمْ مِنَ الطَّيِّبَاتِ وَفَضَّلْنَاهُمْ عَلَى كَثِيرٍ مِمَّنْ خَلَقْنَا تَفْضِيلًا

*And surely We have honoured the children of Adam, and We carry them in the land and the sea, and We have given them of the good things, and We have made them to excel by an appropriate excellence over most of those whom We have created.*

Given this extreme beauty, perfection and honour in human creation, use of smart chips in human body for mere luxury and socialisation and without any sickness or necessity, can leave one in the danger of challenging, changing or not being contented with Allah's perfection of our creation.

Allah says in **Surah An-Nisa, Verse 119:**

وَلَأُضِلَّنَّهُمْ وَلَأُمَنِّيَنَّهُمْ وَلَأَمْرَتُهُمْ فَلْيُبَيِّئَنَّ آذَانَ الْإِنْعَامِ وَلَأَمْرَتُهُمْ فَلْيَعْبِرَنَّ خَلْقَ اللَّهِ وَمَنْ يَتَّخِذِ الشَّيْطَانَ وَلِيًّا مِّنْ دُونِ اللَّهِ فَقَدْ خَسِرَ خُسْرًا مُّبِينًا

*And most certainly I will lead them astray and excite in them vain desires, and bid them so that they shall slit the ears of the cattle, and most certainly I will bid them so that they shall*

*alter Allah's creation; and whoever takes the Shaitan for a guardian rather than Allah he indeed shall suffer a manifest loss.*

**Therefore, implanting smart chips in human body for mere luxury and socialization without any sickness or necessity is not permissible.**

**2. Use of smart chips in human body for healthcare, security, necessity or other *maslaha*.** In such situations, use of the chips is permissible or even compulsory for the following reasons:

Generally speaking, medical treatment or seeking a cure is allowed, because of the report of Abu'l-Darda (may Allah be pleased with him) who said: "The Messenger of Allah (peace and blessings of Allah be upon him) said: 'Allah has sent down the disease and the cure, and has made for every disease the cure. So treat sickness, but do not use anything haram'" (Abu Dawud, 3376)

Usamah ibn Shurayk (may Allah be pleased with him) said: 'The Bedouin said, "O Messenger of Allah, should we not treat sickness?" He said: "Treat sickness, for Allah has not created any disease except He has also created the cure, except for one disease." They said, "O Messenger of Allah, what is it?" He said: "Old age."' (Al-Tirmidhi, 4/383, no. 1961). He said: This is a *sahih hasan* hadith. See also *Sahih al-Jami'*, 2930)

The majority of scholars (Hanafi and Maliki) said that medical treatment is permitted. The Shafi'i's, and al-Qadi, Ibn 'Aqil and Ibn al-Jawzi among the Hanbalis, said that medical treatment is recommended, because of the hadith "Allah has sent down the disease and the cure, and has made for every disease the cure. So treat sickness, but do not use anything haram," and other hadiths which contain instructions to seek cures.

The rulings governing the issue of seeking medication differ according to the circumstances and people involved:

Seeking medication is **obligatory** in cases where not giving medication could cause death, disability, or the loss of a limb, or where the sickness is bound to spread if not treated, as in contagious diseases. It is **encouraged** in cases where not giving

medication may weaken a person physically, and it is not as bad as the cases mentioned above. It is **allowed** in cases which are not covered in the two preceding categories. It is **discouraged** in cases where the treatment could lead to complications that are worse than the original complaint.

Smart chips in human body can also be a necessity to help in addressing artificial or natural deformity one was created with.

There is also no harm in inserting the smart chips in the hands of people with ailments and who are frequent travellers to keep their medical records with them all the time. This will help in timely healthcare provision, especially in times of emergency.

Furthermore, there is no harm for some security personnel to have smart chips implants if the chips can help them obtain pertinent information or help in identifying their location to provide cover for them or rescue them from danger.

*In summary, smart chips implants in human body for mere luxury and socialization without any sickness or necessity is not permissible. However, smart chips implants for healthcare, security, necessity or other maslaha, is permissible.*

**Wallahu a'lam.**



## REFERENCES

1. Al-Qaradawi, Yusuf. "Is It Permissible to Implant a Microchip in the Body?" IslamOnline.net. Accessed April 15, 2023.
2. El-Tayeb, Sheikh Taha. "Medical Ethics: The Islamic Perspective." The Islamic Medical Association of North America. Accessed April 15, 2023.
3. Islahi, Muhammad. "Implantable Microchips: Ethical and Jurisprudential Considerations." Islamic Law and Ethics Review. Vol. 19, No. 1 (2010): 1-20.
4. Omar, Khaled Abou El Fadl. "The Human Body as Divine Trust: Islamic Perspectives on Organ Donation and Transplantation." Journal of Law, Medicine & Ethics. Vol. 30, No. 2 (2002): 259-266.
5. Dan Lohrmann, "Chip Implants: The Next Big Privacy Debate". <https://www.govtech.com/blogs/lohmann-on-cybersecurity/chip-implants-the-next-big-privacy-debate.html>. Accessed October 18, 2023.
6. Ahmed Banafa, "Technology Under Your Skin: 3 Challenges of Microchip Implants", <https://www.bbvaopenmind.com/en/technology/innovation/technology-under-your-skin/>, Accessed October 18, 2023
7. Maddy Savage, "Thousands Of Swedes Are Inserting Microchips Under Their Skin", <https://www.npr.org/2018/10/22/658808705/thousands-of-swedes-are-inserting-microchips-under-their-skin>, Accessed October 18, 2023