

## More people donate tissue in 2020 – even during coronavirus pandemic



*Photo 1: Increase in tissue donation within the network of the German Society for Tissue Transplantation (DGFG) despite difficult conditions during the Corona pandemic. Source: DGFG*

**Hanover, 18 June 2021 - More people receive urgently needed transplants from tissue donation: For 2020, the German Society for Tissue Transplantation (DGFG) again reports an increase with 2,816 tissue donations (2019: 2,764) and 6,364 tissue transplants provided to patients (2019: 5,585). Considering the challenges posed by the Corona pandemic, this is a surprising result that was not to be expected: in spring 2020, the first lockdown in Germany temporarily slowed down the donation and transplantation of tissue.**

"Corona faces us all with unknown challenges. The confrontation with death has rarely seemed so close and ordinary as in these times. Therefore, I feel absolute humility that so many people or their relatives are aware of tissue donation despite the global exceptional situation and have agreed to donate in 2020," emphasises Martin Börgel, Managing Director of the DGFG.

The high level of tissue donation maintained in 2020 was not to be expected with the first lockdown in spring in Germany. By the end of March, tissue donation and procurement had fallen by almost 25 per cent within the DGFG network. Canceled operations, lack of capacity in clinics and the precautionary exclusion of COVID-19 positive deceased patients continue to limit donation and transplantation. Due to an elastic network of donor hospitals, tissue banks and transplanting institutions and their joint efforts, the DGFG supplied patients with tissue even in emergencies.

## **Donating tissue after death: rarely an issue in families**

The increased awareness of health issues among the population in Germany following the pandemic is also reflected in the increased consent rate of almost 41 percent. Nevertheless, the topic of tissue donation continues to receive too little attention from society. As a result, thousands of people are still waiting for a transplant.

The key lies in communication and education. The 50 coordinators of the DGFG inform relatives about the possibility of tissue donation in the event of a death. Last year, they conducted almost 7,500 next of kin interviews; tissue donation was approved 3,046 times. If the deceased did not make a decision for or against tissue donation during their lifetime, the relatives decide in their favour. In 2020, this was the case in more than two thirds of the conversations - an additional burden in time of mourning for the relatives.

Death and what should happen to the body afterwards is still a taboo discussion in many families. The coordinators try to take away this anxiety from the relatives. Börgel pleads: "Don't be afraid of the topic of tissue donation at the dinner table and share your thoughts and opinions with your loved ones". The will can be stated in writing in the organ and tissue donor card or in the living will.

## **More people receive urgently needed transplant from tissue donation**

In contrast to organs, tissues such as corneas, heart valves, blood vessels, amnion (placenta) as well as bones, cartilage, ligaments and skin are not transferred directly to the recipient. They are first processed into transplants in tissue banks.

Within the context of the 2,816 tissue donations, the DGFG was able to obtain 6,081 tissue preparations. At around 90 per cent, the cornea is the most donated tissue in 2020. 5,401 corneas were processed into corneal transplants in the eleven cornea banks in the DGFG's nationwide network. They help patients to achieve better vision or even prevent blindness. With 3,984 corneal transplants, almost half of the 9,000 corneal transplants performed annually in Germany come from the DGFG<sup>1</sup>. Among these were 483 corneal lamellae (LaMEK), pre-prepared in the tissue bank for Descemet Membrane Endothelial Keratoplasty (DMEK). With this surgical technique, the patients' vision recovers even faster: Here, only the lamella, i.e. the ultra-thin layer of the Descemet membrane and its endothelial cells as part of the cornea is replaced.

52 living tissue donations were realised by the DGFG in 2020. Living tissue donation includes the donation of the placenta and its amniotic membrane in the context of a planned caesarean section. In ophthalmology, it is used for the treatment of the corneal surface and can be placed on the diseased eye as an **AmnioClip-plus** fixed in a ring system similar to a contact lens. The DGFG provided 100 such transplants in 2020.

The wound healing-promoting and anti-inflammatory qualities of the amniotic membrane also make it valuable for the care of chronic wounds. Within the DGFG network, **doctors** are reporting initial successes with wounds that have not healed for years.

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<sup>1</sup> Ärzteblatt.de: *Mehr als 9.000 Augenhornhauttransplantationen pro Jahr in Deutschland*. 7 May 2021.  
<https://www.aerzteblatt.de/nachrichten/124448/Mehr-als-9-000-Augenhornhauttransplantationen-pro-Jahr-in-Deutschland>

## **DGFG further expands cardiovascular tissue donation programme**

393 times a person donated its heart with the pulmonary and aortic valves included last year. In addition, the DGFG was able to acquire 267 blood vessels for preparation into a transplant. Most of these cardiovascular tissues come from organ donation. Since organ donation has been stagnating at a low level for years, the share of tissue donations from organ donors was also very low in 2020, at eleven percent of the total donation volume at the DGFG. Yet the need for heart valves and blood vessels is high: if an artificial heart valve or vascular prosthesis becomes inflamed, the transplantation of human donor tissue can save lives. Congenital heart defects also lead to premature wear of the heart valves and usually require tissue transplantation. The DGFG is therefore intensifying programmes for the donation of heart valves and blood vessels from people who have died of cardiovascular diseases. It is still possible to remove these tissues up to 36 hours after death. The DGFG was able to realise 38 such tissue donations after cardiovascular death in 2020 - an increase of seven donations compared to the previous year.

### **Tissue donation - a joint task in the DGFG network**

Despite the constant growth of tissue donation and increasing transplant supply, there is still a lack of tissue in Germany, especially corneas, heart valves and blood vessels. Yet the DGFG assumes that Germany's own demand for tissue can be met - quite independently of imports from abroad. "This can only be achieved if tissue donation continues to be understood as a joint task. The awareness of the population plays a major role here, but the infrastructure for sustainable tissue donation must also be in place," Börgel makes clear.

Not well known: Anyone could donate tissue – in the case of the cornea even up to 72 hours after death. In addition, brain death diagnosis plays no role in tissue donation, in contrast to organ donation. 87 percent of tissue donors have died of cardiovascular arrest. Thus, the number of potential donors is very large: out of 986,000 people, the majority died of cardiovascular diseases in 2020<sup>2</sup> in Germany. Even many types of cancer or a high age do not necessarily rule out tissue donation. Almost 40 percent of the post-mortem tissue donors were older than 75 years in 2020.

### **Non-profit DGFG faces growing demand for tissue transplants**

The DGFG has been promoting tissue donation and transplantation in Germany since 1997. Based on the Tissue Act of 2007, all activities and processes of tissue donation are regulated. The trade ban applies to all tissue preparations.

The task of the DGFG includes the nationwide supply of patients with high-quality transplants. In the future, more and more people will be in need of human donor tissue. In the course of demographic change, many diseases that require tissue transplantation as a last therapeutic option continue to increase and lead to a growing demand. The DGFG arranges its transplants via a central allocation office with a nationwide waiting list. Every medical institution in Germany can purchase tissue from the DGFG.

As an independent, non-profit organisation, the DGFG is supported exclusively by public health care institutions: its shareholders are the university clinic Carl Gustav Carus Dresden, the university clinic Leipzig, the medical school of Hanover, the university medicine Rostock and the Dietrich-Bonhoeffer clinic Neubrandenburg. The DGFG is unique in Germany in its organisational structure, the voluntary

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<sup>2</sup> Statistisches Bundesamt. *Sterbefälle und Lebenserwartung*. Zugriff am 16 May 2021. [https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Sterbefaelle-Lebenserwartung/\\_inhalt.html;jsessionid=48BBF7D5A6C49BE0A50E69DD7B10D45A.live742](https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Sterbefaelle-Lebenserwartung/_inhalt.html;jsessionid=48BBF7D5A6C49BE0A50E69DD7B10D45A.live742)

nature of its support by network partners and its independence from private or commercial interests. In 2020, the following hospitals have joined the nationwide network: Friedrich-Ebert-hospital Neumünster, evangelical hospital Oldenburg, hospital Buchholz and Winsen, DIAKOVERE network Hanover, evangelical hospital BETHESDA Duisburg and the Robert-Bosch-hospital Stuttgart.

### Interview with experts:

- Martin Börgel, Managing Director DGFG
- Dr. med. Frank Polster, Regional Medical Director DGFG

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*Photo 2: Cornea donation is possible up to 72 hours after cardiovascular death. With 5,401 donations and 3,984 transplants, it represents the majority of tissue donations in the DGFG network. Source: DGFG*



*Photo 3: The amniotic membrane extracted from the maternal placenta can achieve true miracles in the treatment of chronic wounds. More than 2,000 of these transplants were provided by the DGFG in 2020. Source: DGFG*



*Photo 4: Similar to the application of a contact lens, the AmnioClip-plus, a ring covered with amniotic membrane, can be applied to superficial eye injuries. 100 clips benefited patients in the DGFG network in 2020. Source: DGFG*