

# Cornea Activity

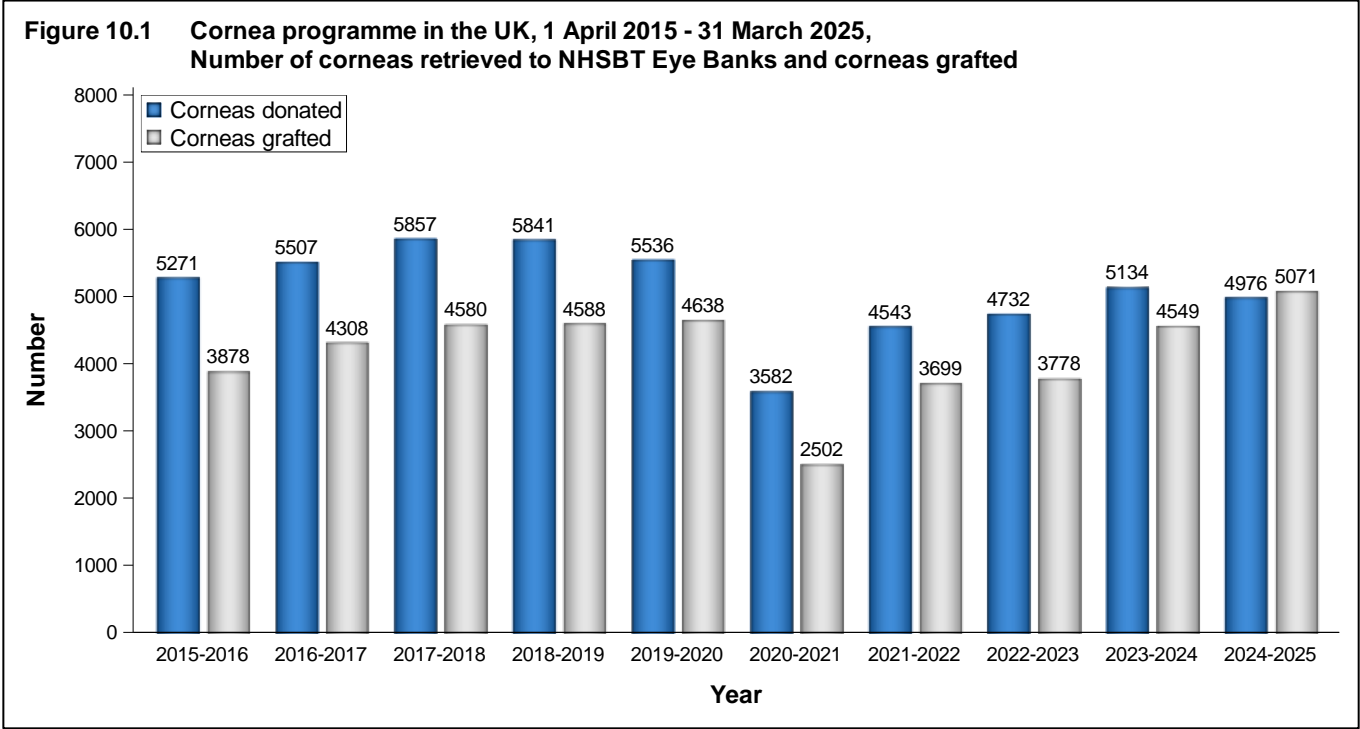
## Key messages

- 4,976 corneas were retrieved to NHSBT Eye Banks
- Corneas were retrieved from 2,150 cornea-only donors and from 344 solid organ donors after brain death (54%) or after circulatory death (46%)
- The number of transplants increased by 11% to 5,071, although figures are an underestimate due to delays in reporting
- 8%, 34% and 13% of corneal transplants were for keratoconus, Fuchs endothelial dystrophy and pseudophakic bullous keratopathy patients, respectively
- Descemet membrane endothelial keratoplasty transplants are the most popular technique for corneal transplantation (35% of all transplants)

10.1 Overview

In the financial year 2024-2025, the number of corneal transplants has increased by 11% to 5,071. These figures are an underestimate due to delays in reporting the transplant outcome to NHSBT. The number of corneas donated in 2024-2025 was 4,976, representing a decrease of 3% compared with the previous year as shown in **Figure 10.1**. Overall, corneal has not fully recovered to pre-pandemic levels.

It should be noted that not all corneas donated or transplanted in the UK are reported to NHSBT and thus the donation data reported are not the full national data.



In 2024-2025, of 2,494 donors whose corneas were retrieved to NHSBT Eye Banks, 2,150 were cornea-only donors and 344 were cornea and solid organ donors: see **Table 10.1**. Compared to 2023-2024, the number of cornea-only donors remained similar, but the number of cornea and solid organ donors fell by 20%. In 2024-2025, corneas were retrieved from 184 organ donors after brain death and 160 organ donors after circulatory death.



**Table 10.1** also shows the number and rate per million population (pmp) of donors whose corneas were retrieved to NHSBT Eye Banks in 2024-2025, by country and NHS region. Information for 2023-2024 is shown for comparison. No adjustments have been made for potential demographic differences in populations.

In 2024-2025, the corneal donor rate has fallen across all four nations. England (41.4 pmp) had the highest corneal donor rate of countries in the UK (39.9 pmp). Across the NHS regions, the corneal donor rate ranged from 21.2 pmp to 69.4 pmp. This variation is largely attributed to the location of NHSBT Eye Retrieval Schemes, NHSBT Eye Banks and non-NHSBT Eye Banks (East Grinstead).

<b>Table 10.1 Corneal donation rates per million population (pmp) in the UK, 1 April 2024 - 31 March 2025 (2023 - 2024), by country/ NHS region for donors whose corneas were retrieved to NHSBT Eye Banks</b>								
<b>Country of residence/ NHS region</b>	<b>Cornea-only</b>		<b>Solid organ and cornea</b>		<b>TOTAL</b>		<b>TOTAL pmp</b>	
North East and Yorkshire	291	(297)	34	(57)	325	(354)	39.5	(43.1)
North West	433	(471)	29	(41)	462	(512)	61.4	(68.1)
Midlands	320	(292)	63	(60)	383	(352)	34.9	(32.1)
East of England	286	(297)	36	(46)	322	(343)	50.3	(53.6)
London	140	(105)	50	(50)	190	(155)	21.4	(17.5)
South East	132	(111)	67	(74)	199	(185)	21.2	(19.7)
South West	359	(368)	41	(60)	400	(428)	69.4	(74.3)
<b>England</b>	<b>1961</b>	<b>(1941)</b>	<b>320</b>	<b>(388)</b>	<b>2281</b>	<b>(2329)</b>	<b>39.9</b>	<b>(40.8)</b>
<b>Isle of Man</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>	<b>0.0</b>	<b>(0.0)</b>
<b>Channel Islands</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>	<b>0.0</b>	<b>(0.0)</b>
<b>Wales</b>	<b>69</b>	<b>(95)</b>	<b>6</b>	<b>(16)</b>	<b>75</b>	<b>(111)</b>	<b>24.0</b>	<b>(35.5)</b>
<b>Scotland</b>	<b>28</b>	<b>(40)</b>	<b>12</b>	<b>(20)</b>	<b>40</b>	<b>(60)</b>	<b>7.3</b>	<b>(11.0)</b>
<b>Northern Ireland</b>	<b>11</b>	<b>(12)</b>	<b>6</b>	<b>(7)</b>	<b>17</b>	<b>(19)</b>	<b>8.9</b>	<b>(9.9)</b>
<b>TOTAL<sup>1</sup></b>	<b>2150</b>	<b>(2151)</b>	<b>344</b>	<b>(431)</b>	<b>2494</b>	<b>(2582)</b>	<b>36.9</b>	<b>(38.2)</b>

<sup>1</sup> Includes UK donors where the hospital/hospice postcode was unspecified

10.2 NHSBT Eye Bank activity

NHSBT Eye Bank activity levels for Filton (Bristol) and David Lucas (in Liverpool) Eye Banks are shown in **Table 10.2**. In 2024-2025, a total of 4,976 corneas were retrieved to NHSBT, of which 3,783 (76%) were subsequently issued for transplantation. Filton Eye Bank processed 49% of corneas retrieved in the last financial year.

Table 10.2 Corneas retrieved into NHSBT Eye Banks, by year 1 April 2024 - 31 March 2025 (2022-2023)								
Eye bank	Total retrieved		Number issued <sup>1</sup>		% issued		Difference between number retrieved and issued	
Filton	2431	(2971)	1809	(2310)	74	(78)	622	(661)
David Lucas	2545	(2163)	1974	(1530)	78	(71)	571	(633)
Total	4976	(5134)	3783	(3840)	76	(75)	1193	(1294)
<sup>1</sup> Number issued of those retrieved in each year								

10.3 Transplants

Corneal transplant activity in the UK by country of residence and NHS regions for the years 2023-2024 and 2024-2025 is detailed in **Table 10.3**. Corneas were supplied by NHSBT and non-NHSBT Eye Banks for corneal transplants in the UK. No adjustments have been made for potential demographic differences in populations.

The overall transplant rate was 67.3 pmp in 2023-2024 which increased to 75.0 pmp in 2024-2025. Transplant rates increased in England, Wales and Scotland. England had the highest transplant rate in the UK: 79.9 pmp, and this ranged from 35.9 pmp to 115.8 pmp across the NHS regions.

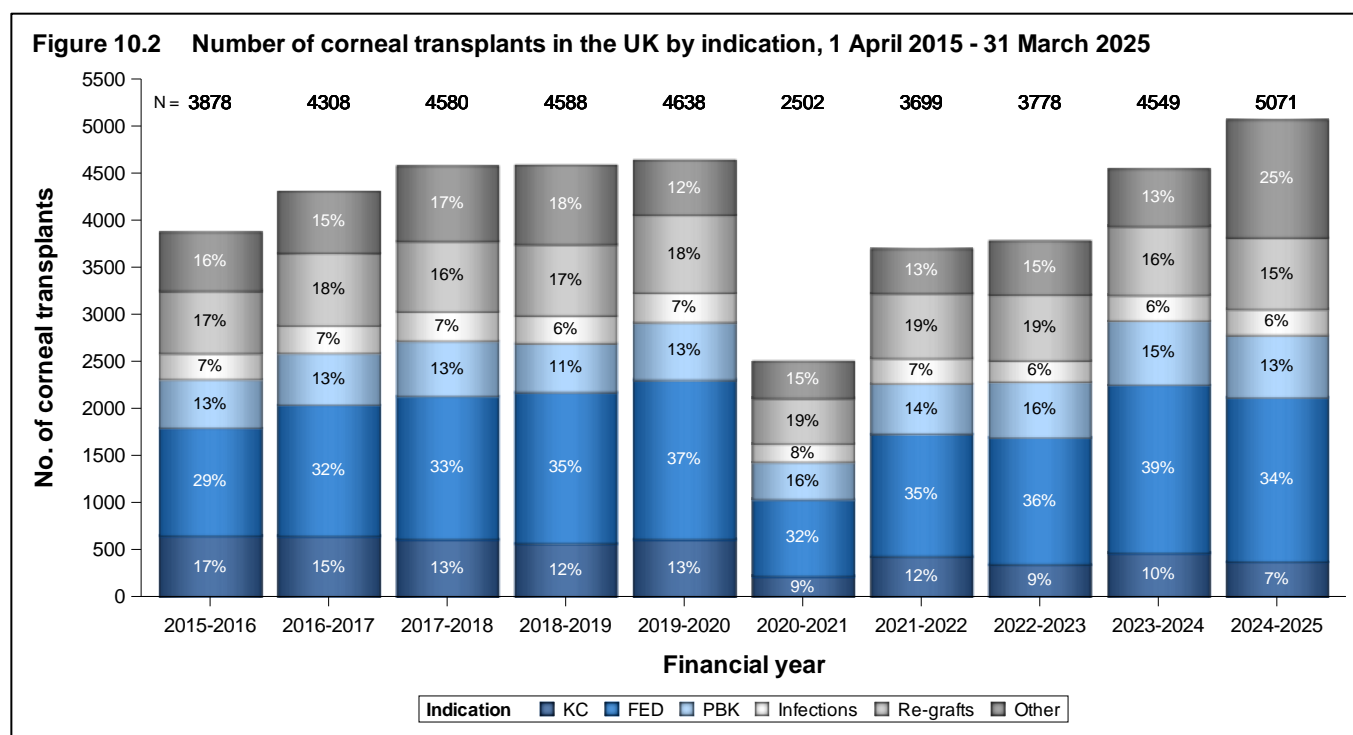


**Table 10.3 Cornea transplants performed per million population (pmp) in the UK, 1 April 2023 - 31 March 2025, by country/NHS region**

Country of residence/ NHS region	Number of transplants (pmp)			
	2023-2024		2024-2025	
North East and Yorkshire	549	(66.8)	649	(79.0)
North West	643	(85.5)	661	(87.9)
Midlands	594	(54.2)	667	(60.9)
East of England	316	(49.4)	230	(35.9)
London	851	(95.9)	1027	(115.8)
South East	667	(71.1)	726	(77.4)
South West	469	(81.4)	605	(105.0)
<b>England</b>	<b>4089</b>	<b>(71.6)</b>	<b>4565</b>	<b>(79.9)</b>
<b>Isle of Man</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>
<b>Channel Islands</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>(0)</b>
<b>Wales</b>	<b>133</b>	<b>(42.5)</b>	<b>139</b>	<b>(44.4)</b>
<b>Scotland</b>	<b>227</b>	<b>(41.7)</b>	<b>287</b>	<b>(52.7)</b>
<b>Northern Ireland</b>	<b>84</b>	<b>(44.0)</b>	<b>60</b>	<b>(31.4)</b>
<b>TOTAL<sup>1</sup></b>	<b>4549</b>	<b>(67.3)</b>	<b>5071</b>	<b>(75.0)</b>

<sup>1</sup> Includes UK recipients where the postcode was unspecified and non-UK recipients

**Figure 10.2** shows the number of corneal transplants in the UK by indication for transplant from 1 April 2015 to 31 March 2025. For corneas transplanted in 2023-2024 and 2024-2025, a further breakdown by indication is shown in **Table 10.4**.



The most common indication for transplantation is FED, representing 34% of corneal transplants in 2024-2025, as shown in **Table 10.4**.

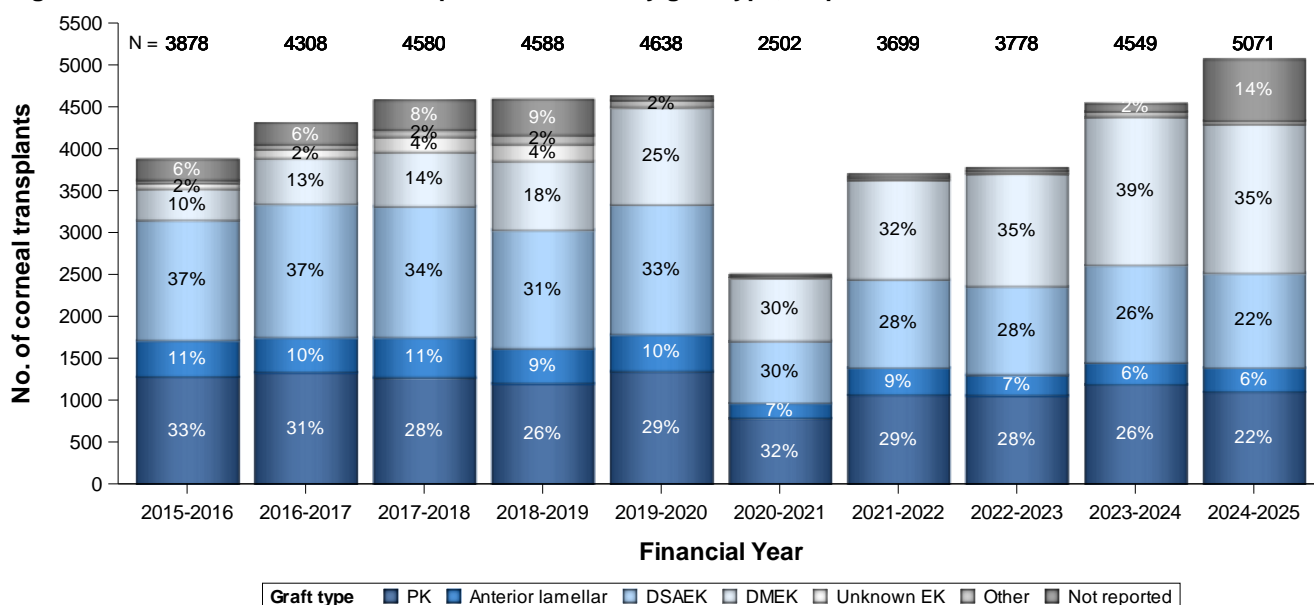
<b>Table 10.4 Corneal transplants in the UK by indication and financial year, 1 April 2023 - 31 March 2025</b>				
Indication for transplant	2023 - 2024		2024 - 2025	
	N	%	N	%
<b>Keratoconus (KC)</b>	<b>473</b>	<b>10.4</b>	<b>379</b>	<b>7.5</b>
<b>Fuchs endothelial dystrophy (FED)</b>	<b>1780</b>	<b>39.1</b>	<b>1745</b>	<b>34.4</b>
<b>Pseudophakic bullous keratopathy (PBK)</b>	<b>686</b>	<b>15.1</b>	<b>657</b>	<b>13.0</b>
<b>Infections</b>	<b>271</b>	<b>6.0</b>	<b>282</b>	<b>5.6</b>
<b>Re-grafts</b>	<b>733</b>	<b>16.1</b>	<b>759</b>	<b>15.0</b>
<b>Other (listed below)</b>	<b>606</b>	<b>13.3</b>	<b>1249</b>	<b>24.6</b>
Ectasias	19	0.4	17	0.3
Dystrophies	73	1.6	67	1.3
Previous ocular surgery	116	2.6	126	2.5
Injury	55	1.2	55	1.1
Ulcerative keratitis	46	1.0	50	1.0
Opacification	81	1.8	105	2.1
Miscellaneous	162	3.6	147	2.9
Not reported	54	1.2	682	13.4
<b>Total</b>	<b>4549</b>	<b>100.0</b>	<b>5071</b>	<b>100.0</b>

**Figure 10.3** shows the number of corneal transplants in the UK by graft type from 1 April 2015 to 31 March 2025. Over the last 10 years, the proportion of penetrating keratoplasty (PK) grafts has reduced by nearly a third. Descemet Membrane Endothelial Keratoplasty (DMEK) transplants are now the most popular technique for corneal transplantation.

The type of EK graft, Descemet Stripping Automated EK (DSAEK) and DMEK transplants, were first collected as free text on the form. This meant that all EK transplants were often reported as EK unknown. In April 2019, the form changed so that 'EK unknown' was no longer specified.

Between January 2014 and April 2019, unknown EK graft types have been imputed such that grafts by surgeons that have never reported a DMEK transplant are assumed to be Descemet Stripping Automated EK (DSAEK) transplants and all transplants prior to the first reported DMEK are considered DSAEK transplants. A further breakdown by graft type for corneas transplanted in 2023-2024 and 2024-2025 is shown in **Table 10.5**.

**Figure 10.3 Number of corneal transplants in the UK by graft type, 1 April 2015 - 31 March 2025**



Between April 2013 to March 2019, unknown EK grafts have been imputed such that historic grafts and grafts by surgeons that have never reported a DMEK transplant are assumed to be DSAEK transplants

In 2024-2025, 22% of grafts were DSAEK and 35% were DMEK grafts. PK grafts are still a popular choice for corneal transplantation accounting for 22% of all transplants in 2024-2025.

**Table 10.5 Corneal transplants in the UK by graft type and financial year, 1 April 2023 - 31 March 2025**

Graft type	2023 - 2024		2024 - 2025	
	N	%	N	%
PK	1195	26.3	1103	21.8
Anterior lamellar	259	5.7	294	5.8
DSAEK	1166	25.6	1129	22.3
DMEK	1769	38.9	1769	34.9
Other	66	1.5	50	1.0
Not reported	94	2.1	726	14.3
<b>All grafts</b>	<b>4549</b>	<b>100.0</b>	<b>5071</b>	<b>100.0</b>

## 10.4 Demographic characteristics

The age, sex and ethnicity of cornea donors and transplant recipients are shown in **Table 10.6**.

<b>Table 10.6 Demographic characteristics of donors whose corneas were retrieved to NHSBT Eye Banks and transplant recipients in the UK, 1 April 2024 - 31 March 2025</b>						
	<b>Cornea-only donors</b>		<b>Solid organ and cornea donors</b>		<b>Transplant recipients</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Age group (years)</b>						
0 - 17	5	0.2	4	1.2	32	0.6
18 - 34	23	1.1	27	7.8	303	6.0
35 - 49	108	5.0	62	18.0	449	8.9
50 - 59	227	10.6	82	23.8	546	10.8
60 - 69	493	22.9	95	27.6	1025	20.2
70-79	742	34.5	71	20.6	1614	31.8
80+	552	25.7	3	0.9	1102	21.7
Mean (SD)	70	(12)	56	(14)	66	(16)
<b>Sex</b>						
Male	1251	58.2	200	58.1	2697	53.2
Female	899	41.8	144	41.9	2372	46.8
Unknown					2	
<b>Ethnicity</b>						
White	58	2.7	310	90.1	3627	71.5
Asian	2	0.1	16	4.7	332	6.5
Black	0	0.0	4	1.2	154	3.0
Other	0	0.0	2	0.6	40	0.8
Not reported	2090	97.2	12	3.5	918	18.1
<b>TOTAL</b>	<b>2150</b>	<b>100.0</b>	<b>344</b>	<b>100.0</b>	<b>5071</b>	<b>100.0</b>