

# **The Amputee Statistical Database for the United Kingdom**

**2000/01**

Information & Statistics Division  
NHSScotland

on behalf of  
National Amputee Statistical Database  
(NASDAB)

Edinburgh 2003

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Information & Statistics Division is the database manager for the National Amputee Statistical Database (NASDAB)

Information & Statistics Division  
NHSScotland  
Trinity Park House  
South Trinity Road  
Edinburgh EH5 3SQ

Tel 0131-551 8899  
Fax 0131-551 1392

Publication enquiries and orders :

Jane James  
Business Support Manager  
Trinity Park House  
Edinburgh EH5 3SQ

Tel 0131-551 8665  
email jane.james@isd.csa.scot.nhs.uk

National Amputee Statistical Database (NASDAB)  
Dr Robin Luff  
Kings College Hospitals Rehabilitation Centre  
Bowley Close  
Farquhar Road  
London  
SE19 1SZ

Tel 0207 346 5232  
email robin.luff@kingsch.nhs.uk

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Internet address ó [www.nasdab.co.uk](http://www.nasdab.co.uk)

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## Foreword

I am delighted to introduce this Report, the fourth in the consecutive series of annual reports produced to present national amputation data from the perspective of rehabilitation services. Although the impact of the millennium on data systems was relatively light, it had a substantial effect on data collection for the National Amputee Statistical Database. I am pleased to report that data collection for this year's report was more straightforward and I do hope that recipients will take the necessary time to go through the report and find the data informative and useful.

In this year, the Steering Group for the database has taken the opportunity to review the contract for database management; this is held by the Information and Statistics Division (ISD) of the Common Services Agency of NHSScotland. The original contract was approaching its termination date but the Steering Group was entirely satisfied with the excellent support it has received throughout from ISD and therefore enacted the rollover clause. ISD thus continue as our database manager. There have been internal re-alignments of departments within ISD and our database managers now find themselves under new management! This has opened up a useful avenue of database development as I shall describe later in this introduction.

There has been a valuable and continued improvement in the quality of data submitted by centres for inclusion in the database. There is clear room for further improvement however and the Steering Group is examining some definitions within the data set to assist in achieving the necessary improvement. Clearly, the higher the quality of data submitted, the more powerful the database becomes and the Steering Group will be setting targets for data quality, reporting on these in future reports. The database managers already undertake quality checks on data submitted but cannot check the quality of empty fields.

The table covering ethnicity data for amputees referred to rehabilitation centres has been deleted from this report. The quality of data submitted was of such poor quality in both accuracy and quantity that the Steering Group felt that it was not providing any useful information. If the collection of ethnicity data through NHS data requirements improves – the table will be re-introduced.

From the introduction of the database, users have been encouraged to submit queries and in this year we have received requests for information particularly about amputations in children and multiple amputations. The database has also been used as a reference most notably in the commissioning documents under preparation by the Department of Health.

Discussions continue about developments of the database particularly to examine congenital anomalies in detail and to develop a prescription database. Both these will require considerable additional resources and possible sources of funding are being investigated. At the moment, NASDAB is funded by a levy on the centres and the Steering Group is considering other possibilities.

Through the new management arrangements at ISD, the Steering Group has access to additional data sources. It may be possible to use these to develop a model allowing accurate estimation of the UK amputee population i.e. the prevalence of amputations rather than the incidence of referred amputees. This exciting possibility will be explored in the next year. If the model proves robust, the information will be included in the next annual report.

The next annual report – 2001-2002 – which is now in preparation will include a new section in which trends with time will be considered. This interesting possibility arises from the consistent collection of data against a stable data set over a number of years. This should provide sound evidence to support arguments based on future amputee populations and their needs.



Robin Luff FRCS FRCP  
Chairman  
NASDAB Steering Group

## Current membership of the NASDAB steering group

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Dr Robin Luff, Kings Prosthetics Service Centre (Chairperson)

Mr Angus Berthinussen, RSL Steeper

Mrs Joan Forrest, ISD Scotland

Mr Robert Graham, NHS Purchasing and Supply Agency

Mrs Jane James, ISD Scotland (Secretariat)

Mr Simon Keymer, Addenbrookes Prosthetics Service Centre

Ms Elaine Lewis, Cardiff Prosthetics Service Centre

Dr Jeff Lindsay, West Midlands Regional Rehabilitation Centre

Mr Mike Muirhead, ISD Scotland

Ms Sue Walker, Stanmore Disablement Services Centre

Mr Simon Webster, British Healthcare Trades Association

Professor Alastair Weir, West of Scotland Mobility and Rehabilitation Centre

## Introduction

This is the fourth in a series of Annual Reports based on the data provided from prosthetics service centres in the United Kingdom for the year ending 31<sup>st</sup> March 2001. The first report was published in June 1999, the second report was published in December 2000 and the third in February 2002. The information contained in this 2000/01 Annual Report is derived from details supplied by centres in England, Northern Ireland, Scotland and Wales.

### Points of Interest

- There was a total of 5767 new referrals to prosthetics service centres in the United Kingdom for the year ending 31<sup>st</sup> March 2001. This is six percent more than in 1990/00 (5443). The gender breakdown of new referrals is identical to last year. (*see Table 2*)
- The overall median ages of all referrals for males and females are identical to last year (65 and 70 years respectively). (*see Table 2*)
- One quarter of males and two fifths of females are aged 75 or over at the time of referral. (*see Table 2*)
- Lower limb amputations accounted for ninety-two per cent of the total amputations. Upper limb amputations accounted for nearly five per cent and congenital absence cases accounted for just over two per cent. (*see Table 3*)
- The most common level of amputation remains at a trans-tibial level accounting for forty eight per cent of all referrals. Only very rarely are patients referred with both an upper and a lower limb amputation (17 cases in 2000/01). (*see Table 3*)
- The most common cause of upper limb amputation remains trauma at fifty six per cent. For lower limbs, dysvascularity was the reported cause in seventy-two per cent of cases. (*see Tables 7 & 12*)
- Almost half of all new referrals to prosthetics service centres were seen within two weeks of their referral date. (*see Tables 16a & b*)



UK Prosthetics Services  
**NEW REFERRALS**



## New referrals

The table below shows the total number of referrals to each of the UK's prosthetics service centres for the four quarters ending 31<sup>st</sup> March 2001. Across the UK the number of amputees referred has increased by 6 per cent from last year.

The quarterly analysis does not support the existence of seasonal variation in the incidence of referral after amputation.

The number of new referrals seen by centres varies enormously, probably reflecting the size of their catchment population. For example, the centre in Manchester sees 30 times more new referrals than the centre in Inverness (430 new referrals were seen in Manchester compared to 14 in Inverness). This has implications for the size of service required and costs required to run these centres.

**Table 1** New referrals to prosthetics service centres : 2000/01

Prosthetics Service Centre	Quarter ending				Total	Number of registrations <sup>2</sup>	New referrals as % of registrations
	30 Jun '00	30 Sep '00	31 Dec '00	31 Mar '01			
Aberdeen	11	11	4	8	34	550	6.2
Belfast	30	19	26	20	95	1684	5.6
Birmingham	77	87	84	81	329	4058	8.1
Bristol	34	40	30	43	147	1955	7.5
Cambridge	30	22	30	36	118	1227	9.6
Cardiff	38	35	38	37	148	1607	9.2
Carlisle	11	15	10	21	57	494	11.5
Cleveland	28	41	30	40	139	1125	12.4
Derby <sup>1</sup>	12	11	16	9	48	356	13.5
Dundee	43	45	26	28	142	750	18.9
Edinburgh	20	26	12	12	70	1448	4.8
Exeter	34	43	33	38	148	1130	13.1
Gillingham	42	35	27	41	145	1939	7.5
Glasgow (Strathclyde University)	11	5	16	12	44	553	8.0
Glasgow (Westmarc)	57	40	27	35	159	3309	4.8
Hull	17	32	21	20	90	825	10.9
Inverness	5	3	2	4	14	291	4.8
Isle of Wight	3	7	3	2	15	185	8.1
Leeds	48	59	36	62	205	2339	8.8
Leicester	16	12	15	11	54	626	8.6
Liverpool (Fazakerley)	50	54	34	60	198	1269	15.6
London (Charing Cross)	12	13	24	23	72	751	9.6
London (Harold Wood)	65	78	60	69	272	2348	11.6
London (Kings)	20	29	24	30	103	1514	6.8
London (Roehampton)	33	33	20	20	106	2986	3.5
London (Stanmore)	54	29	40	39	162	1973	8.2
Luton & Dunstable	21	29	20	23	93	815	11.4
Manchester	109	109	85	127	430	3009	14.3
Newcastle	58	57	47	46	208	2031	10.2
Northampton	15	17	10	11	53	613	8.6
Norwich	29	23	39	30	121	1240	9.8
Nottingham	51	34	25	38	148	1821	8.1
Oxford <sup>1</sup>	37	42	36	47	162	1834	8.8
Plymouth	21	28	28	37	114	1101	10.4
Portsmouth	34	23	28	11	96	1737	5.5
Preston	49	50	52	61	212	1632	13.0
Ringwood	24	25	30	23	102	828	12.3
Sheffield	68	59	74	70	271	1986	13.6
Stoke	25	18	25	34	102	1039	9.8
Sussex	30	24	19	27	100	1264	7.9
Swansea	34	34	35	30	133	968	13.7
Wirral	20	26	14	29	89	820	10.9
Wolverhampton	30	39	32	32	133	1015	13.1
Wrexham	26	31	16	13	86	938	9.2
<b>All centres</b>	<b>1 482</b>	<b>1 492</b>	<b>1 303</b>	<b>1 490</b>	<b>5 767</b>	<b>61983</b>	<b>9.3</b>

1 1999/00 data.

2 See Appendix 1.

Gender and age

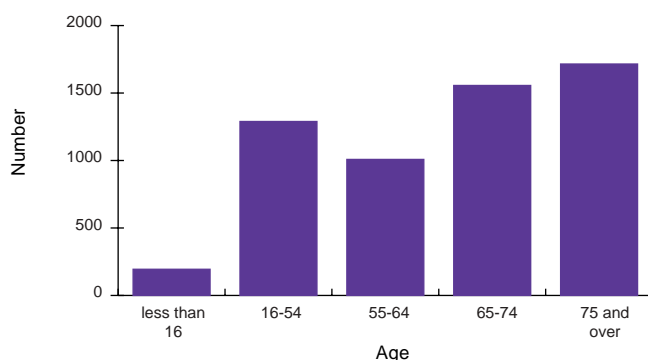
There is a marked gender difference in median age at presentation, the median for males is 65 and for females it is 70 years of age. There are marked local variations for the median age; for example for males at Plymouth it is 72 compared to 56 at London (Stanmore). For females the median age at Swansea is 77 years whilst at Aberdeen the median age is 55 years.

Table 2 Gender and age ; by prosthetics service centre : 2000/01

Prosthetics Service Centre	Males					All ages	Median Age
	less than 16	16-54	55-64	65-74	75 and over		
Aberdeen	1	12	6	4	4	27	56
Belfast	2	25	13	17	6	63	57
Birmingham	4	59	32	59	62	216	67
Bristol	3	22	18	29	26	98	68
Cambridge	1	23	20	16	19	79	63
Cardiff	1	20	26	23	23	93	64
Carlisle	-	-	-	-	-	-	-
Cleveland	1	20	22	35	26	104	68
Derby <sup>1</sup>	3	10	3	10	4	30	61
Dundee	-	21	18	26	27	92	68
Edinburgh	-	7	10	14	12	43	69
Exeter	1	13	13	28	40	95	71
Gillingham	1	19	24	24	31	99	67
Glasgow (Strathclyde University)	-	1	11	8	10	30	69
Glasgow (Westmarc)	5	23	30	29	23	110	62
Hull	-	16	12	19	16	63	67
Inverness	-	1	3	1	2	7	64
Isle of Wight	-	2	3	5	2	12	66
Leeds	4	35	35	32	30	136	63
Leicester	2	10	5	9	7	33	64
Liverpool (Fazakerley)	7	30	31	38	29	135	64
London (Charing Cross)	-	20	10	8	9	47	58
London (Harold Wood)	6	53	37	43	41	180	64
London (Kings)	5	24	18	13	10	70	58
London (Roehampton)	2	29	10	16	14	71	58
London (Stanmore)	9	39	16	24	15	103	56
Luton & Dunstable	-	9	14	22	17	62	67
Manchester	3	67	77	84	71	302	65
Newcastle	9	34	20	43	37	143	67
Northampton	-	6	6	13	8	33	68
Norwich	2	16	12	25	28	83	71
Nottingham	3	32	19	26	23	103	64
Oxford <sup>1</sup>	7	21	22	28	34	112	68
Plymouth	1	8	11	28	34	82	72
Portsmouth	-	10	11	17	20	58	70
Preston	4	37	29	41	28	139	64
Ringwood	4	22	7	22	23	78	69
Sheffield	7	54	27	50	49	187	66
Stoke	2	10	6	24	20	62	70
Sussex	5	11	7	18	17	58	68
Swansea	2	23	11	27	21	84	68
Wirral	5	13	14	21	14	67	65
Wolverhampton	-	15	28	27	21	91	66
Wrexham	2	13	14	19	15	63	67
<b>All centres</b>	<b>114</b>	<b>935</b>	<b>761</b>	<b>1 065</b>	<b>968</b>	<b>3 843</b>	<b>65</b>

1 1999/00 data.

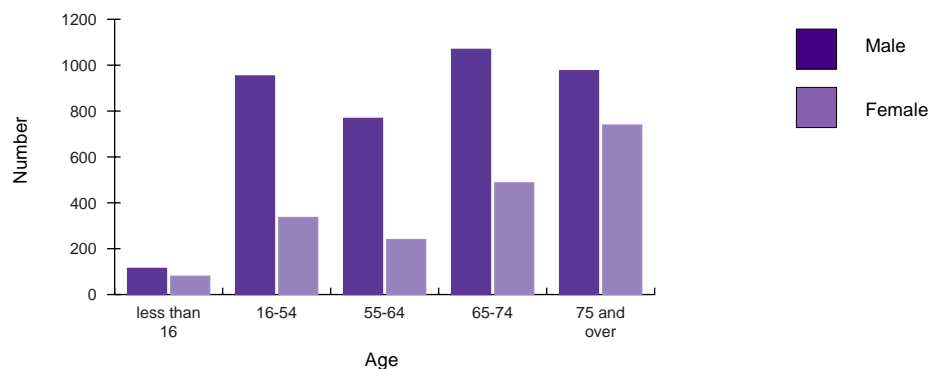
Chart 1a Age : 2000/01



One quarter of males and two fifths of females are aged 75 or over at time of referral. This table also highlights the relatively small number of patients aged under 16 years (about 3% of all new referrals). However, the need for support from the centres for these patients will extend over a much longer time frame than for the other patients. Almost half of these young patients are referred as a result of congenital absence (see table 14).

less than 16	Females					All ages	Median Age	Gender unspecified	Total	Median Age	Prosthetics Service Centre
	16-54	55-64	65-74	75 and over							
1	2	2	-	2	7	55	-	34	56	Aberdeen	
2	1	5	10	14	32	72	-	95	64	Belfast	
8	15	14	28	48	113	72	-	329	69	Birmingham	
3	7	6	11	22	49	74	-	147	69	Bristol	
2	4	5	9	19	39	74	-	118	67	Cambridge	
1	9	9	14	22	55	69	-	148	66	Cardiff	
-	-	-	-	-	-	-	57	57	70	Carlisle	
2	6	6	4	17	35	74	-	139	68	Cleveland	
-	5	1	3	2	11	58	7	48	58	Derby <sup>1</sup>	
-	8	6	12	24	50	74	-	142	70	Dundee	
-	4	3	13	7	27	71	-	70	70	Edinburgh	
1	6	7	18	21	53	72	-	148	71	Exeter	
2	12	4	10	18	46	71	-	145	68	Gillingham	
-	2	2	5	5	14	69	-	44	69	Glasgow (Strathclyde University)	
6	7	7	18	11	49	68	-	159	65	Glasgow (Westmarc)	
-	5	5	6	11	27	74	-	90	67	Hull	
-	3	1	-	3	7	58	-	14	63	Inverness	
-	1	-	-	2	3	76	-	15	66	Isle of Wight	
8	16	10	16	19	69	66	-	205	64	Leeds	
2	4	1	4	10	21	72	-	54	67	Leicester	
-	12	10	19	22	63	69	-	198	65	Liverpool (Fazakerley)	
-	7	2	8	8	25	70	-	72	63	London (Charing Cross)	
4	14	7	30	37	92	71	-	272	67	London (Harold Wood)	
1	11	6	8	7	33	63	-	103	59	London (Kings)	
2	7	7	4	15	35	68	-	106	63	London (Roehampton)	
6	14	7	14	17	58	66	1	162	60	London (Stanmore)	
-	7	2	8	14	31	71	-	93	68	Luton & Dunstable	
7	24	19	39	39	128	68	-	430	66	Manchester	
2	9	10	16	28	65	72	-	208	69	Newcastle	
-	5	4	5	6	20	72	-	53	68	Northampton	
-	9	3	7	19	38	75	-	121	72	Norwich	
-	14	5	11	15	45	70	-	148	65	Nottingham	
9	13	7	7	14	50	58	-	162	67	Oxford <sup>1</sup>	
1	2	3	10	16	32	75	-	114	73	Plymouth	
-	4	9	6	19	38	75	-	96	71	Portsmouth	
3	11	4	24	31	73	72	-	212	68	Preston	
2	1	2	6	12	23	75	1	102	71	Ringwood	
2	16	7	21	38	84	73	-	271	68	Sheffield	
-	6	5	10	18	39	71	1	102	70	Stoke	
2	5	8	8	19	42	73	-	100	70	Sussex	
-	5	7	10	27	49	77	-	133	70	Swansea	
1	4	3	5	9	22	74	-	89	68	Wirral	
-	6	3	15	18	42	72	-	133	70	Wolverhampton	
-	7	4	5	7	23	69	-	86	67	Wrexham	
<b>80</b>	<b>330</b>	<b>238</b>	<b>477</b>	<b>732</b>	<b>1 857</b>	<b>70</b>	<b>67</b>	<b>5 767</b>	<b>67</b>	<b>All centres</b>	

Chart 1b Age and gender : 2000/01



## Level of amputation

The completeness in the recording of the level of amputation at centres continues to be very good at over 99 per cent. Of the 5743 patients whose amputation level was recorded, the great majority (92%) were referred following a lower limb amputation. Upper limb deficiency accounts for around 5 per cent and congenital absence accounts for 2.5 per cent of referrals.

When comparing the data in Table 3 with UK hospital activity analysis of upper and lower primary amputations (Appendix 2) it is clear that only a small proportion of foot and hand amputations are referred to prosthetics centres. A great majority of upper limb digit amputations are never referred and the majority of partial foot amputations are probably seen through district orthotic services.

**Table 3** Level of amputation and congenital absence; by prosthetics service centre : 2000/01

Prosthetics Service Centre	Upper Limb Amputations <sup>1</sup>									Total
	Fore-quarter	Shoulder disarticulation	Trans-humeral	Elbow disarticulation	Trans-radial	Wrist disarticulation	Partial hand	Digits	Double upper amp.	
Aberdeen	-	-	-	-	1	-	-	-	-	1
Belfast	-	-	1	-	-	-	-	2	-	3
Birmingham	-	2	7	-	7	5	9	-	1	31
Bristol	-	-	1	-	1	-	-	1	-	3
Cambridge	-	-	2	-	1	-	2	-	-	5
Cardiff	-	1	3	-	1	-	2	-	-	7
Carlisle	1	-	2	1	-	-	-	3	-	7
Cleveland	-	-	-	-	1	-	-	-	-	1
Derby <sup>4</sup>	-	-	-	-	-	-	-	-	-	-
Dundee	-	-	1	-	1	-	-	1	-	3
Edinburgh	-	-	1	-	1	-	-	-	-	2
Exeter	-	-	1	-	1	-	-	-	-	2
Gillingham	1	1	2	1	2	-	3	-	-	10
Glasgow (Strathclyde University)	-	-	-	-	-	-	-	-	-	-
Glasgow (Westmarc)	2	1	1	-	1	-	2	4	2	13
Hull	-	-	-	-	2	-	-	5	-	7
Inverness	-	-	-	-	-	-	-	-	-	-
Isle of Wight	-	-	-	-	-	-	-	-	-	-
Leeds	-	1	1	-	2	1	3	-	1	9
Leicester	-	-	2	-	2	-	-	-	1	5
Liverpool (Fazakerley)	-	1	1	1	2	-	1	-	-	6
London (Charing Cross)	-	-	-	-	-	-	-	-	-	-
London (Harold Wood)	2	2	8	-	2	-	2	-	-	16
London (Kings)	2	-	3	-	2	-	8	-	-	15
London (Roehampton)	1	-	1	-	2	-	2	-	-	6
London (Stanmore)	1	1	3	-	4	2	1	2	-	14
Luton & Dunstable	-	-	-	-	-	-	-	-	-	-
Manchester	-	-	2	-	3	3	2	9	-	19
Newcastle	2	1	4	2	1	-	4	-	-	14
Northampton	-	-	-	-	-	-	-	-	-	-
Norwich	-	-	-	-	2	-	-	-	-	2
Nottingham	-	-	1	-	2	-	-	10	1	14
Oxford <sup>4</sup>	-	1	-	-	1	-	4	-	-	6
Plymouth	-	-	-	-	-	-	-	-	-	-
Portsmouth	1	1	3	1	-	-	1	1	-	8
Preston	-	-	4	-	2	1	10	-	-	17
Ringwood	1	-	2	-	-	-	-	-	-	3
Sheffield	-	-	5	-	-	-	8	-	-	13
Stoke	-	-	-	-	2	-	-	-	-	2
Sussex	-	-	2	-	2	1	-	1	-	6
Swansea	-	-	1	-	1	-	2	1	-	5
Wirral	-	-	3	-	1	-	-	-	-	4
Wolverhampton	-	-	-	-	-	-	-	-	-	-
Wrexham	-	-	-	-	1	1	2	-	-	4
<b>All centres</b>	<b>14</b>	<b>13</b>	<b>68</b>	<b>6</b>	<b>54</b>	<b>14</b>	<b>68</b>	<b>40</b>	<b>6</b>	<b>283</b>

<sup>1</sup> See also the Upper Limb Amputation tables on pages 16-19 for additional details.

<sup>2</sup> See also the Lower Limb Amputation tables on pages 22-25 for additional details.

<sup>3</sup> See also the Miscellaneous Group of Amputation tables on pages 29-31 for additional details on complex amputations and congenital absence.

<sup>4</sup> 1999/00 data.

Lower Limb Amputations <sup>2</sup>										Miscellaneous Amputations <sup>3</sup>					Total		Prosthetics Service Centre
Hemi pelvec- tomy	Hip disartic- ulation	Trans- femoral	Knee disartic- ulation	Trans- tibial	Ankle disartic- ulation	Partial foot	Digits	Double lower amp.	Total	Cross- site amp.	Triple amp.	Quad- ruple amp.	Con- genital absence	No level	Total		
-	2	10	-	18	-	-	-	2	32	-	-	-	1	-	1	34	Aberdeen
-	1	41	-	40	-	2	-	3	87	1	-	-	4	-	5	95	Belfast
2	1	125	4	140	1	-	12	8	293	-	-	1	4	-	5	329	Birmingham
1	1	36	3	92	-	1	-	3	137	-	-	-	7	-	7	147	Bristol
-	1	28	-	75	-	2	-	3	109	-	-	1	3	-	4	118	Cambridge
-	1	62	2	60	-	3	-	9	137	-	-	-	4	-	4	148	Cardiff
-	-	15	-	29	-	2	-	4	50	-	-	-	-	-	-	57	Carlisle
-	-	45	4	73	-	-	2	11	135	1	-	-	2	-	3	139	Cleveland
-	-	13	10	10	2	-	-	-	35	-	-	-	4	9	13	48	Derby <sup>4</sup>
-	-	44	2	90	2	-	-	1	139	-	-	-	-	-	-	142	Dundee
-	2	23	1	37	-	1	-	3	67	-	-	-	-	1	1	70	Edinburgh
-	2	55	9	78	-	-	1	-	145	-	-	-	1	-	1	148	Exeter
2	-	63	3	53	1	-	2	7	131	-	-	-	4	-	4	145	Gillingham
-	-	11	-	29	-	-	-	4	44	-	-	-	-	-	-	44	Glasgow <small>(Strathclyde University)</small>
-	-	47	2	74	1	-	1	16	141	-	-	-	5	-	5	159	Glasgow <small>(Westmarc)</small>
-	1	30	1	50	-	1	-	-	83	-	-	-	-	-	-	90	Hull
-	-	5	-	8	-	-	-	1	14	-	-	-	-	-	-	14	Inverness
-	-	6	-	9	-	-	-	-	15	-	-	-	-	-	-	15	Isle of Wight
-	-	71	2	93	3	5	-	9	183	-	-	-	12	1	13	205	Leeds
-	-	15	-	27	-	-	-	1	43	-	-	1	5	-	6	54	Leicester
-	1	81	5	92	2	6	-	-	187	-	-	-	5	-	5	198	Liverpool <small>(Fazakerley)</small>
-	1	25	3	38	2	1	-	1	71	-	-	-	-	1	1	72	London <small>(Charing Cross)</small>
-	1	95	3	122	1	2	1	13	238	-	2	1	15	-	18	272	London <small>(Harold Wood)</small>
2	3	32	2	40	-	4	-	-	83	-	-	-	5	-	5	103	London <small>(Kings)</small>
-	-	29	4	58	1	2	-	5	99	-	-	-	1	-	1	106	London <small>(Roehampton)</small>
2	4	58	3	63	3	3	-	-	136	-	-	1	9	2	12	162	London <small>(Stanmore)</small>
-	-	32	2	55	-	2	-	2	93	-	-	-	-	-	-	93	Luton & Dunstable
1	1	183	3	189	1	1	-	26	405	-	3	-	1	2	6	430	Manchester
-	1	82	-	101	-	1	2	-	187	-	-	-	7	-	7	208	Newcastle
-	-	16	1	36	-	-	-	-	53	-	-	-	-	-	-	53	Northampton
1	-	45	-	62	1	3	-	5	117	-	-	-	2	-	2	121	Norwich
2	-	47	2	69	-	1	-	7	128	1	-	-	5	-	6	148	Nottingham
1	-	51	5	77	3	-	1	2	140	-	1	1	13	1	16	162	Oxford <sup>4</sup>
-	-	40	-	72	-	-	1	1	114	-	-	-	-	-	-	114	Plymouth
-	2	23	3	56	1	1	-	-	86	-	-	-	2	-	2	96	Portsmouth
-	-	95	1	76	-	4	-	10	186	-	-	-	3	6	9	212	Preston
-	1	29	2	55	1	2	-	5	95	-	1	-	3	-	4	102	Ringwood
-	-	118	17	83	2	32	-	-	252	-	-	-	6	-	6	271	Sheffield
-	-	45	2	45	1	6	-	-	99	-	-	-	-	1	1	102	Stoke
-	-	36	1	51	-	3	2	1	94	-	-	-	-	-	-	100	Sussex
-	1	42	-	69	-	1	-	13	126	-	-	-	2	-	2	133	Swansea
-	-	34	-	40	-	2	-	2	78	1	-	-	6	-	7	89	Wirral
-	-	60	1	72	-	-	-	-	133	-	-	-	-	-	-	133	Wolverhampton
-	-	29	-	45	-	2	-	2	78	-	-	-	4	-	4	86	Wrexham
<b>14</b>	<b>28</b>	<b>2 072</b>	<b>103</b>	<b>2 751</b>	<b>29</b>	<b>96</b>	<b>25</b>	<b>180</b>	<b>5 298</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>145</b>	<b>24</b>	<b>186</b>	<b>5 767</b>	<b>All centres</b>

## Region of residence

This table presents the referral patterns from each region to the prosthetics service centres and demonstrates that centres primarily care for local populations. Comparisons between this data in future years will provide a record of changes in referral patterns e.g. as a consequence of the impact of the increase in patient choice. The distribution of centres within regions reflects the population base and geographical factors; centre activity reflects the size and general health of its catchment population.

**Table 4** Region of residence ; by prosthetics service centre : 2000/01

Prosthetics Service Centre	Region <sup>2</sup>														Total	
	Northern & Yorkshire	Trent Midlands	West Midlands	North West	Eastern	London	South East	South West	N.I. <sup>3</sup> - East	N.I. <sup>3</sup> - North	N.I. <sup>3</sup> - South	N.I. <sup>3</sup> - Scotland West	Wales	Invalid/Blank		
Aberdeen	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	<b>34</b>
Belfast	-	-	-	-	-	-	-	-	41	34	10	10	-	-	-	<b>95</b>
Birmingham	2	5	316	1	1	-	-	-	-	-	-	-	2	2	-	<b>329</b>
Bristol	-	-	1	-	-	-	-	143	-	-	-	-	-	-	3	<b>147</b>
Cambridge	-	10	-	-	108	-	-	-	-	-	-	-	-	-	-	<b>118</b>
Cardiff	-	-	-	-	-	-	-	-	-	-	-	-	148	-	-	<b>148</b>
Carlisle	56	-	-	-	-	-	-	-	-	-	-	-	-	1	-	<b>57</b>
Cleveland	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>139</b>
Derby <sup>1</sup>	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>48</b>
Dundee	-	-	-	-	-	-	-	-	-	-	-	-	142	-	-	<b>142</b>
Edinburgh	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	<b>70</b>
Exeter	-	-	-	-	-	-	-	148	-	-	-	-	-	-	-	<b>148</b>
Gillingham	-	-	-	-	-	13	128	-	-	-	-	-	-	-	4	<b>145</b>
Glasgow (Strathclyde University)	-	-	-	-	-	-	-	-	-	-	-	-	44	-	-	<b>44</b>
Glasgow (Westmarc)	-	-	-	-	-	-	-	-	-	-	-	159	-	-	-	<b>159</b>
Hull	64	26	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>90</b>
Inverness	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	<b>14</b>
Isle of Wight	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	<b>15</b>
Leeds	204	1	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>205</b>
Leicester	-	53	-	-	-	-	1	-	-	-	-	-	-	-	-	<b>54</b>
Liverpool (Fazakerley)	-	-	-	198	-	-	-	-	-	-	-	-	-	-	-	<b>198</b>
London (Charing Cross)	-	-	-	-	-	68	4	-	-	-	-	-	-	-	-	<b>72</b>
London (Harold Wood)	-	-	-	-	106	165	-	-	-	-	-	-	-	-	1	<b>272</b>
London (Kings)	-	-	-	-	1	95	7	-	-	-	-	-	-	-	-	<b>103</b>
London (Roehampton)	-	-	-	-	-	55	45	-	-	-	-	-	-	-	6	<b>106</b>
London (Stanmore)	-	-	-	-	34	121	5	-	-	-	-	-	-	-	2	<b>162</b>
Luton & Dunstable	-	-	-	-	92	-	1	-	-	-	-	-	-	-	-	<b>93</b>
Manchester	-	6	1	421	-	-	-	-	-	-	-	-	-	2	-	<b>430</b>
Newcastle	168	-	-	-	-	-	-	-	-	-	-	-	-	-	40	<b>208</b>
Northampton	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	<b>53</b>
Norwich	-	2	-	-	119	-	-	-	-	-	-	-	-	-	-	<b>121</b>
Nottingham	-	148	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>148</b>
Oxford <sup>1</sup>	-	-	-	-	3	-	136	23	-	-	-	-	-	-	-	<b>162</b>
Plymouth	-	-	-	-	-	-	-	114	-	-	-	-	-	-	-	<b>114</b>
Portsmouth	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-	<b>96</b>
Preston	-	-	-	208	-	-	-	-	-	-	-	-	-	-	4	<b>212</b>
Ringwood	-	-	-	-	-	-	11	91	-	-	-	-	-	-	-	<b>102</b>
Sheffield	5	262	-	-	-	-	-	-	-	-	-	-	-	-	4	<b>271</b>
Stoke	-	5	91	2	-	-	-	-	-	-	-	-	2	2	-	<b>102</b>
Sussex	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	<b>100</b>
Swansea	-	-	-	-	-	-	-	-	-	-	-	-	133	-	-	<b>133</b>
Wirral	-	-	-	89	-	-	-	-	-	-	-	-	-	-	-	<b>89</b>
Wolverhampton	-	-	133	-	-	-	-	-	-	-	-	-	-	-	-	<b>133</b>
Wrexham	-	-	3	-	-	-	-	-	-	-	-	-	83	-	-	<b>86</b>
<b>Total</b>	<b>638</b>	<b>566</b>	<b>545</b>	<b>919</b>	<b>464</b>	<b>517</b>	<b>587</b>	<b>519</b>	<b>41</b>	<b>34</b>	<b>10</b>	<b>10</b>	<b>463</b>	<b>370</b>	<b>84</b>	<b>5 767</b>

1 1999/00 data.

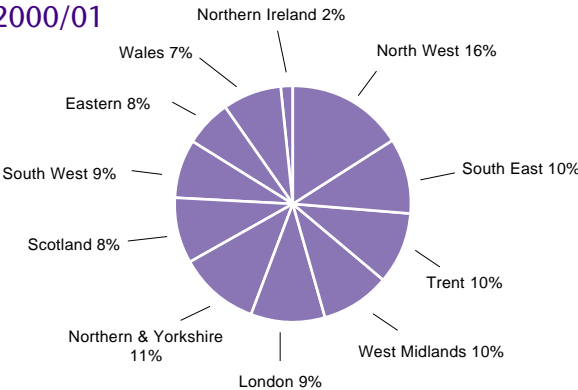
2 Scottish Centres do not record the purchaser code.

3 N.I. = Northern Ireland.

In 2000/01 referrals from the North West region represent 16% of all new referrals. This is a 19% increase on the number referred in the previous year from this region. The referrals from the South East region represent 10% of the total number of referrals for 2000/01 - a decrease of 19% on the previous year's activity.

Chart 2

Region : 2000/01





UK Prosthetics Services

# UPPER LIMB AMPUTATIONS

## Upper Limb Amputations

### Level of amputation by centre

The number of referrals to each centre is expressed as a percentage according to level of amputation. It is important to note that for many centres the total number of upper limb amputee referral is very small and comparisons between centres requires careful examination of the data.

Half of all upper limb amputations are either trans-humeral or partial hand amputations.

The more unusual levels of upper limb amputation tend to be referred to centres with special interests.

**Table 5** Level of amputation<sup>1</sup> as a percentage of total number; by prosthetics service centre : 2000/01

Prosthetics Service Centre	Level of amputation									Total no. of referrals
	Fore-quarter	Shoulder disarticulation	Trans-humeral	Elbow disarticulation	Trans-radial	Wrist disarticulation	Partial hand	Digits	Double upper amp.	
	Row percentages <sup>2</sup>									
Aberdeen	0	0	0	0	100	0	0	0	0	1
Belfast	0	0	33	0	0	0	0	67	0	3
Birmingham	0	6	23	0	23	16	29	0	3	31
Bristol	0	0	33	0	33	0	0	33	0	3
Cambridge	0	0	40	0	20	0	40	0	0	5
Cardiff	0	14	43	0	14	0	29	0	0	7
Carlisle	14	0	29	14	0	0	0	43	0	7
Cleveland	0	0	0	0	100	0	0	0	0	1
Dundee	0	0	33	0	33	0	0	33	0	3
Edinburgh	0	0	50	0	50	0	0	0	0	2
Exeter	0	0	50	0	50	0	0	0	0	2
Gillingham	10	10	20	10	20	0	30	0	0	10
Glasgow (Westmarc)	15	8	8	0	8	0	15	31	15	13
Hull	0	0	0	0	29	0	0	71	0	7
Leeds	0	11	11	0	22	11	33	0	11	9
Leicester	0	0	40	0	40	0	0	0	20	5
Liverpool (Fazakerley)	0	17	17	17	33	0	17	0	0	6
London (Harold Wood)	13	13	50	0	13	0	13	0	0	16
London (Kings)	13	0	20	0	13	0	53	0	0	15
London (Roehampton)	17	0	17	0	33	0	33	0	0	6
London (Stanmore)	7	7	21	0	29	14	7	14	0	14
Manchester	0	0	11	0	16	16	11	47	0	19
Newcastle	14	7	29	14	7	0	29	0	0	14
Norwich	0	0	0	0	100	0	0	0	0	2
Nottingham	0	0	7	0	14	0	0	71	7	14
Oxford <sup>3</sup>	0	17	0	0	17	0	67	0	0	6
Portsmouth	13	13	38	13	0	0	13	13	0	8
Preston	0	0	24	0	12	6	59	0	0	17
Ringwood	33	0	67	0	0	0	0	0	0	3
Sheffield	0	0	38	0	0	0	62	0	0	13
Stoke	0	0	0	0	100	0	0	0	0	2
Sussex	0	0	33	0	33	17	0	17	0	6
Swansea	0	0	20	0	20	0	40	20	0	5
Wirral	0	0	75	0	25	0	0	0	0	4
Wrexham	0	0	0	0	25	25	50	0	0	4
<b>All centres: %</b>	<b>5</b>	<b>5</b>	<b>24</b>	<b>2</b>	<b>19</b>	<b>5</b>	<b>24</b>	<b>14</b>	<b>2</b>	
<b>All centres: number</b>	<b>14</b>	<b>13</b>	<b>68</b>	<b>6</b>	<b>54</b>	<b>14</b>	<b>68</b>	<b>40</b>	<b>6</b>	<b>283</b>

1 Excludes congenital absence cases.

2 Due to rounding row percentages may not add up to 100%.

3 1999/00 data.

## Level of amputation by gender and age

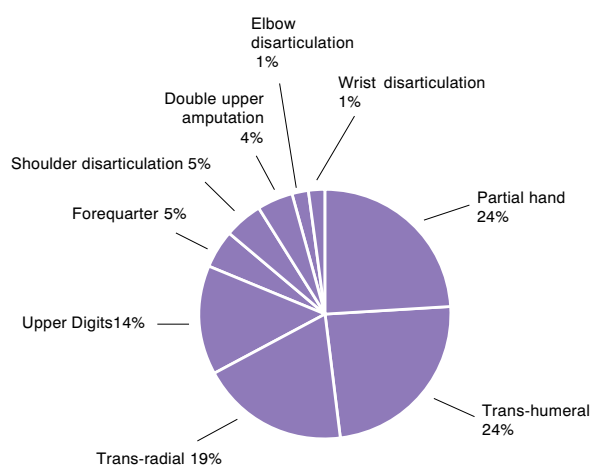
Seven out of ten upper limb amputee referrals occur in the 16-64 age range (197/276, 71.4%) with the majority of these being male (141/197, 71.6%).

Table 6 Level of amputation<sup>1</sup>; by gender and age : 2000/01

Level of amputation	Males						Females						Not Specified	Total
	less than 16	16-54	55-64	65-74	75 and over	All ages	less than 16	16-54	55-64	65-74	75 and over	All ages		
Forequarter	1	5	1	1	1	9	1	1	1	1	-	4	1	14
Shoulder disarticulation	-	6	-	2	2	10	-	2	-	1	-	3	-	13
Trans-humeral	1	30	4	3	4	42	3	7	3	4	7	24	2	68
Elbow disarticulation	-	2	-	-	-	2	-	1	-	1	1	3	1	6
Trans-radial	4	20	5	2	3	34	2	9	7	1	1	20	-	54
Wrist disarticulation	1	6	2	-	1	10	2	1	-	1	-	4	-	14
Partial hand	4	30	10	2	4	50	3	14	-	-	1	18	-	68
Upper Digits	3	17	1	-	2	23	3	7	2	1	1	14	3	40
Double upper amputation	1	2	-	-	2	5	-	-	1	-	-	1	-	6
<b>All upper limb amputations<sup>1</sup></b>	<b>15</b>	<b>118</b>	<b>23</b>	<b>10</b>	<b>19</b>	<b>185</b>	<b>14</b>	<b>42</b>	<b>14</b>	<b>10</b>	<b>11</b>	<b>91</b>	<b>7</b>	<b>283</b>

1 Excludes congenital absence cases.

Chart 3 Level of amputation : 2000/01



## Upper Limb Amputations

### Cause and level

Of the 250 referrals (88% of the total) where a cause of upper limb loss was reported, trauma accounted for 56 per cent, neoplasia for 13 per cent and dysvasculature for 10 per cent.

There continues to be an improvement in the quality of the data being collected. The number of records where the cause of amputation is given continues to rise. The use of the “no cause provided” code has fallen by 15% over the past 3 years. In 2000/01, only 12% of records were completed using the “no cause provided” code.

Table 7 Level of amputation <sup>1</sup> ; by cause of amputation : 2000/01

Cause of amputation	Level of amputation									Total
	Fore-quarter	Shoulder disarticulation	Trans-humeral	Elbow disarticulation	Trans-radial	Wrist disarticulation	Partial hand	Digits	Double upper amp.	
<b>Trauma</b>	<b>2</b>	<b>4</b>	<b>33</b>	<b>2</b>	<b>24</b>	<b>6</b>	<b>35</b>	<b>30</b>	<b>4</b>	<b>140</b>
No Additional Detail	1	-	11	2	9	3	11	17	2	56
Mechanical	1	3	14	-	9	3	14	12	2	58
Electrical	-	1	7	-	3	-	9	1	-	21
Thermal	-	-	1	-	2	-	1	-	-	4
Chemical	-	-	-	-	1	-	-	-	-	1
<b>Dysvasculature</b>	<b>-</b>	<b>1</b>	<b>8</b>	<b>-</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>24</b>
No Additional Detail	-	-	3	-	2	-	-	-	-	5
Diabetes Mellitus	-	1	1	-	-	2	1	1	1	7
Non-diabetic Arteriosclerosis	-	-	-	-	1	-	-	-	-	1
Embolism	-	-	3	-	3	-	-	-	-	6
Arteritis (inc. Rheumatoid Arthritis, Autoimmune Disease)	-	-	1	-	-	-	4	-	-	5
<b>Infection</b>	<b>-</b>	<b>1</b>	<b>3</b>	<b>-</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>-</b>	<b>13</b>
No Additional Detail	-	1	1	-	1	-	1	2	-	6
Acute	-	-	-	-	-	1	-	2	-	3
Chronic	-	-	2	-	2	-	-	-	-	4
<b>Neurological Disorder</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>
Diabetic Neuropathy	-	-	-	-	1	-	-	-	-	1
<b>Neoplasia</b>	<b>11</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>-</b>	<b>4</b>	<b>3</b>	<b>-</b>	<b>32</b>
No Additional Detail	3	-	1	-	-	-	2	-	-	6
Benign	-	1	-	-	-	-	-	1	-	2
Malignant - Primary	8	-	6	2	4	-	2	2	-	24
<b>Other - No Additional Detail</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>1</b>	<b>8</b>	<b>-</b>	<b>15</b>	<b>1</b>	<b>-</b>	<b>40</b>
<b>No Cause Provided</b>	<b>-</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>5</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>33</b>
<b>All causes<sup>1</sup></b>	<b>14</b>	<b>13</b>	<b>68</b>	<b>6</b>	<b>54</b>	<b>14</b>	<b>68</b>	<b>40</b>	<b>6</b>	<b>283</b>

<sup>1</sup> Excludes congenital absence cases.

## Cause and age

Trauma was the most common cause of upper limb loss in all age groups apart from 65-74 years. Neoplasia and Other are the most common causes within the 65-74 age group.

Table 8 Cause of amputation<sup>1</sup>; by age : 2000/01

Cause of amputation	Age Group					Total
	less than 16	16-54	55-64	65-74	75 and over	
<b>Trauma</b>	<b>8</b>	<b>104</b>	<b>14</b>	<b>2</b>	<b>12</b>	<b>140</b>
No Additional Detail	5	37	6	1	7	56
Mechanical	2	43	7	1	5	58
Electrical	1	19	1	-	-	21
Thermal	-	4	-	-	-	4
Chemical	-	1	-	-	-	1
<b>Dysvascularity</b>	<b>-</b>	<b>13</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>24</b>
No Additional Detail	-	2	2	-	1	5
Dibetes Mellitus	-	3	2	1	1	7
Non-diabetic Arteriosclerosis	-	-	-	1	-	1
Embolism	-	3	-	-	3	6
Arteritis (inc. Rheumatoid Arthritis, Autoimmune Disease)	-	5	-	-	-	5
<b>Infection</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>-</b>	<b>13</b>
No Additional Detail	-	3	2	1	-	6
Acute	2	1	-	-	-	3
Chronic	-	2	2	-	-	4
<b>Neurological Disorder</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>
Diabetic Neuropathy	-	-	-	1	-	1
<b>Neoplasia</b>	<b>3</b>	<b>13</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>32</b>
No Additional Detail	1	3	1	-	1	6
Benign	-	1	-	-	1	2
Malignant - Primary	2	9	3	5	5	24
<b>Other</b>	<b>9</b>	<b>13</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>40</b>
<b>No Cause Provided</b>	<b>7</b>	<b>17</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>33</b>
<b>Total</b>	<b>29</b>	<b>166</b>	<b>37</b>	<b>20</b>	<b>31</b>	<b>283</b>

1 Excludes congenital absence cases.

Chart 4a Cause of amputation : 2000/01 including 'No cause provided'

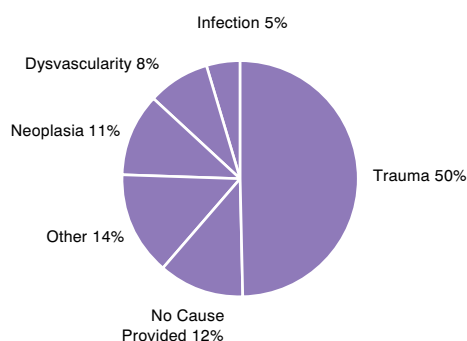
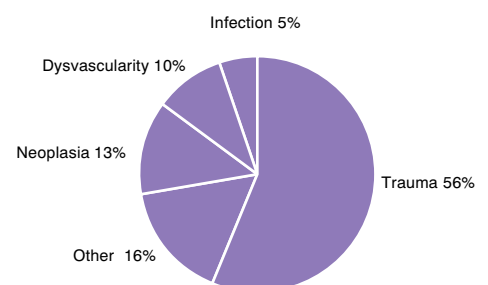


Chart 4b Cause of amputation : 2000/01 excluding 'No cause provided'





UK Prosthetics Services

# LOWER LIMB AMPUTATIONS

## Lower Limb Amputations

### Level of amputation by centre

Just over half of lower limb amputees presented with trans-tibial amputations (52%) whereas trans-femoral amputations accounted for 39 per cent of the total. There is substantial local variation in the percentage of trans-tibial and trans-femoral amputations.

- Cambridge (109 cases) trans-tibial 69%, trans-femoral 26%
- Leeds (183 cases) trans-tibial 51%, trans-femoral 39%
- Gillingham (131 cases) trans-tibial 40%, trans-femoral 48%

All other amputation levels were uncommon.

**Table 9** Level of amputation<sup>1</sup> as a percentage of total number; by prosthetics service centre : 2000/01

Prosthetics Service Centre	Level of amputation									Total no. (= 100%)
	Hemi pelve-tomy	Hip disarticulation	Trans-femoral	Knee disarticulation	Trans-tibial	Ankle disarticulation	Partial foot	Digits	Double lower amp.	
	Percentages									
Aberdeen	0	6	31	0	56	0	0	0	6	32
Belfast	0	1	47	0	46	0	2	0	3	87
Birmingham	1	0	43	1	48	0	0	4	3	293
Bristol	1	1	26	2	67	0	1	0	2	137
Cambridge	0	1	26	0	69	0	2	0	3	109
Cardiff	0	1	45	1	44	0	2	0	7	137
Carlisle	0	0	30	0	58	0	4	0	8	50
Cleveland	0	0	33	3	54	0	0	1	8	135
Derby <sup>2</sup>	0	0	37	29	29	6	0	0	0	35
Dundee	0	0	32	1	65	1	0	0	1	139
Edinburgh	0	3	34	1	55	0	1	0	4	67
Exeter	0	1	38	6	54	0	0	1	0	145
Gillingham	2	0	48	2	40	1	0	2	5	131
Glasgow (Strathclyde University)	0	0	25	0	66	0	0	0	9	44
Glasgow (Westmarc)	0	0	33	1	52	1	0	1	11	141
Hull	0	1	36	1	60	0	1	0	0	83
Inverness	0	0	36	0	57	0	0	0	7	14
Isle of Wight	0	0	40	0	60	0	0	0	0	15
Leeds	0	0	39	1	51	2	3	0	5	183
Leicester	0	0	35	0	63	0	0	0	2	43
Liverpool (Fazakerley)	0	1	43	3	49	1	3	0	0	187
London (Charing Cross)	0	1	35	4	54	3	1	0	1	71
London (Harold Wood)	0	0	40	1	51	0	1	0	5	238
London (Kings)	2	4	39	2	48	0	5	0	0	83
London (Roehampton)	0	0	29	4	59	1	2	0	5	99
London (Stanmore)	1	3	43	2	46	2	2	0	0	136
Luton & Dunstable	0	0	34	2	59	0	2	0	2	93
Manchester	0	0	45	1	47	0	0	0	6	405
Newcastle	0	1	44	0	54	0	1	1	0	187
Northampton	0	0	30	2	68	0	0	0	0	53
Norwich	1	0	38	0	53	1	3	0	4	117
Nottingham	2	0	37	2	54	0	1	0	5	128
Oxford <sup>2</sup>	1	0	36	4	55	2	0	1	1	140
Plymouth	0	0	35	0	63	0	0	1	1	114
Portsmouth	0	2	27	3	65	1	1	0	0	86
Preston	0	0	51	1	41	0	2	0	5	186
Ringwood	0	1	31	2	58	1	2	0	5	95
Sheffield	0	0	47	7	33	1	13	0	0	252
Stoke	0	0	45	2	45	1	6	0	0	99
Sussex	0	0	38	1	54	0	3	2	1	94
Swansea	0	1	33	0	55	0	1	0	10	126
Wirral	0	0	44	0	51	0	3	0	3	78
Wolverhampton	0	0	45	1	54	0	0	0	0	133
Wrexham	0	0	37	0	58	0	3	0	3	78
<b>All centres: %</b>	<b>0</b>	<b>1</b>	<b>39</b>	<b>2</b>	<b>52</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>	
<b>All centres: total no.</b>	<b>14</b>	<b>28</b>	<b>2072</b>	<b>103</b>	<b>2751</b>	<b>29</b>	<b>96</b>	<b>25</b>	<b>180</b>	<b>5298</b>

1 Excludes congenital absence cases.

2 1999/00 data.

Level of amputation by gender and age

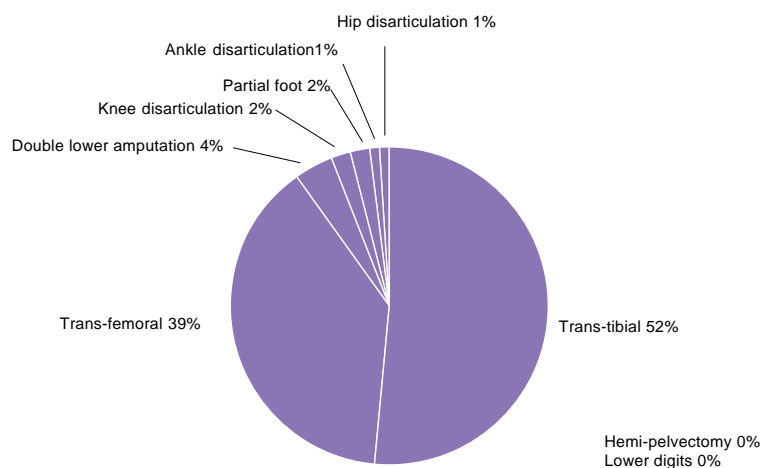
Two thirds of lower limb amputees referred in 2000/01 were male (67%). Just over half of all amputations in males were at the trans-tibial level (54%) with a slightly lower proportion in females (48%); the great majority of the remaining amputations were at the trans-femoral level (38% in males and 42% in females).

Table 10 Level of amputation<sup>1</sup>; by gender and age : 2000/01

Level of amputation	Males						Females						Not Specified	Total
	less than 16	16-54	55-64	65-74	75 and over	All ages	less than 16	16-54	55-64	65-74	75 and over	All ages		
Hemi-pelvectomy	-	3	3	2	1	9	1	4	-	-	-	5	-	14
Hip disarticulation	1	9	2	3	1	16	-	5	4	1	2	12	-	28
Trans-femoral	14	251	284	422	376	1 347	5	71	91	206	335	708	17	2 072
Knee disarticulation	1	9	7	19	20	56	3	7	4	9	23	46	1	103
Trans-tibial	19	445	395	544	508	1 911	12	139	108	220	329	808	32	2 751
Ankle disarticulation	4	12	3	-	1	20	1	3	1	2	2	9	-	29
Partial foot	2	19	8	16	11	56	-	14	7	8	9	38	2	96
Lower digits	1	5	3	6	3	18	2	1	-	1	3	7	-	25
Double lower amputation	1	39	29	36	25	130	-	9	4	19	14	46	4	180
<b>All lower limb amputations<sup>1</sup></b>	<b>43</b>	<b>792</b>	<b>734</b>	<b>1 048</b>	<b>946</b>	<b>3 563</b>	<b>24</b>	<b>253</b>	<b>219</b>	<b>466</b>	<b>717</b>	<b>1 679</b>	<b>56</b>	<b>5 298</b>

1 Excludes cases of congenital absence.

Chart 5 Level of amputation : 2000/01



## Lower Limb Amputations

### Cause and level

The preponderance of dysvascularity as a cause of amputation is clearly evident (72% of all lower limb amputations). It is important to note the reported incidence of lower limb amputation arising from dysvascularity has increased from 56 per cent in 1998/99 to 68 per cent in 1999/00 to 72% this year. The most common level of amputation among neoplasia cases is at a trans-femoral level accounting for almost half of all neoplasia.

In comparison with previous years data the number referred because of Venous Disease is decreasing.

Although the aim is to collect the cause of lower limb amputation at a more detailed level, only the most basic level (No Additional Detail) was provided for nearly half of the trauma cases in 2000/01. This is consistent with previous years.

**Table 11** Level of amputation<sup>1</sup> ; by cause of amputation : 2000/01

Cause of amputation	Level of amputation									Total
	Hemi pelve-tomy	Hip disarticulation	Trans-femoral	Knee disarticulation	Trans-tibial	Ankle disarticulation	Partial foot	Digits	Double lower amp.	
<b>Trauma</b>	<b>3</b>	<b>4</b>	<b>130</b>	<b>8</b>	<b>247</b>	<b>12</b>	<b>23</b>	<b>6</b>	<b>15</b>	<b>448</b>
No Additional Detail	1	2	67	3	114	3	9	3	4	206
Mechanical	2	2	46	5	92	8	10	2	7	174
Electrical	0	0	17	0	36	1	4	1	3	62
Thermal	0	0	0	0	4	0	0	0	1	5
Chemical	0	0	0	0	1	0	0	0	0	1
<b>Dysvascularity</b>	<b>3</b>	<b>2</b>	<b>1 352</b>	<b>55</b>	<b>1 878</b>	<b>4</b>	<b>45</b>	<b>4</b>	<b>121</b>	<b>3 464</b>
No Additional Detail	0	0	431	18	513	0	15	2	25	1 004
Diabetes Mellitus	1	0	298	21	809	2	17	2	61	1 211
Non-diabetic Arteriosclerosis	2	1	534	13	476	1	10	0	25	1 062
Embolism	0	0	40	3	16	0	0	0	5	64
Vasospastic Conditions	0	0	4	0	10	0	0	0	0	14
Disseminated Intravascular Coagulation	0	0	0	0	1	0	0	0	1	2
Endovascular Chemical Trauma	0	1	2	0	2	0	0	0	1	6
Buerger's Disease	0	0	9	0	21	0	0	0	0	30
Iatrogenic Vascular Trauma	0	0	3	0	2	0	1	0	0	6
Arteritis	0	0	8	0	10	0	0	0	1	19
Venous Disease	0	0	23	0	18	1	2	0	2	46
<b>Infection</b>	<b>-</b>	<b>5</b>	<b>96</b>	<b>5</b>	<b>103</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>227</b>
No Additional Detail	0	0	39	1	39	1	3	1	1	85
Acute	0	2	15	1	14	1	1	0	3	37
Chronic	0	3	42	3	50	2	1	0	4	105
<b>Neurological Disorder</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>1</b>	<b>39</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>52</b>
No Additional Detail	0	0	1	1	13	0	0	0	0	15
Diabetic Neuropathy	0	0	4	0	11	0	0	0	0	15
Infective	0	0	1	0	3	0	1	0	0	5
Spina Bifida	-	-	2	-	9	-	1	-	-	12
Poliomyelitis	-	-	1	-	-	-	1	-	-	2
Peripheral Nerve Injury	-	-	-	-	3	-	-	-	-	3
<b>Neoplasia</b>	<b>5</b>	<b>10</b>	<b>60</b>	<b>2</b>	<b>36</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>121</b>
No Additional Detail	-	1	11	-	6	-	-	-	1	19
Benign	1	-	-	-	-	-	-	-	-	1
Malignant - Primary	4	9	47	2	29	1	5	1	-	98
Malignant - Secondary	-	-	2	-	1	-	-	-	-	3
<b>Other</b>	<b>1</b>	<b>4</b>	<b>191</b>	<b>14</b>	<b>212</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>14</b>	<b>454</b>
<b>No Cause Provided</b>	<b>2</b>	<b>3</b>	<b>234</b>	<b>18</b>	<b>236</b>	<b>6</b>	<b>2</b>	<b>10</b>	<b>21</b>	<b>532</b>
<b>All causes<sup>1</sup></b>	<b>14</b>	<b>28</b>	<b>2 072</b>	<b>103</b>	<b>2 751</b>	<b>29</b>	<b>96</b>	<b>25</b>	<b>180</b>	<b>5 298</b>

<sup>1</sup> Excludes congenital absence cases.

### Cause and age

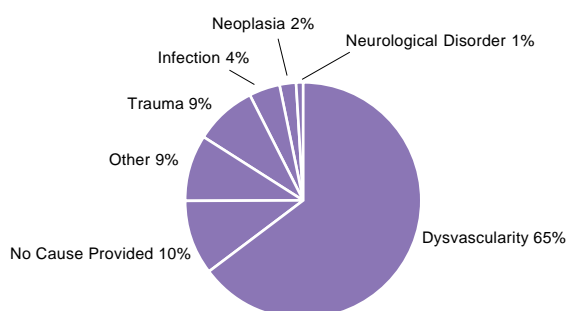
The majority of lower limb amputations as a result of trauma occur in the relatively young (under 54 years, 66%). The figures below demonstrate clearly the strong association between dysvascularity as a cause of limb loss, and increasing age.

**Table 12** Cause of amputation <sup>1</sup> ; by age : 2000/01

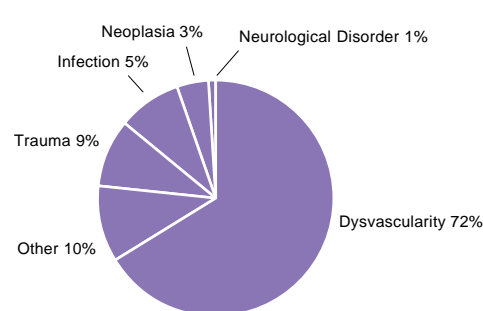
Cause of amputation	Age Group					No age given	Total
	less than 16	16-54	55-64	65-74	75 and over		
<b>Trauma</b>	<b>12</b>	<b>283</b>	<b>56</b>	<b>43</b>	<b>54</b>	-	<b>448</b>
No Additional Detail	6	109	30	26	35	-	206
Mechanical	4	123	19	13	15	-	174
Electrical	1	49	7	3	2	-	62
Thermal	1	1	-	1	2	-	5
Chemical	-	1	-	-	-	-	1
<b>Dysvascularity</b>	<b>7</b>	<b>436</b>	<b>668</b>	<b>1 118</b>	<b>1 233</b>	<b>2</b>	<b>3 464</b>
No Additional Detail	1	113	178	327	385	-	1 004
Diabetes Mellitus	1	173	263	431	342	1	1 211
Non-diabetic Arteriosclerosis	4	97	201	319	440	1	1 062
Embolism	-	12	13	11	28	-	64
Vasospastic Conditions	-	4	-	7	3	-	14
Disseminated Intravascular Coagulation	-	1	-	-	1	-	2
Endovascular Chemical Trauma	-	5	-	-	1	-	6
Buerger's Disease	-	20	2	3	5	-	30
Iatrogenic Vascular Trauma	1	1	1	-	3	-	6
Arteritis	-	4	4	7	4	-	19
Venous Disease	-	6	6	13	21	-	46
<b>Infection</b>	<b>10</b>	<b>56</b>	<b>48</b>	<b>57</b>	<b>56</b>	-	<b>227</b>
No Additional Detail	2	17	25	18	23	-	85
Acute	5	12	6	6	8	-	37
Chronic	3	27	17	33	25	-	105
<b>Neurological Disorder</b>	<b>2</b>	<b>27</b>	<b>7</b>	<b>7</b>	<b>9</b>	-	<b>52</b>
No Additional Detail	1	9	2	1	2	-	15
Diabetic Neuropathy	-	2	3	4	6	-	15
Infective	1	1	1	1	1	-	5
Spina Bifida	-	12	-	-	-	-	12
Poliomyelitis	-	1	-	1	-	-	2
Peripheral Nerve Injury	-	2	1	-	-	-	3
<b>Neoplasia</b>	<b>11</b>	<b>51</b>	<b>18</b>	<b>17</b>	<b>24</b>	-	<b>121</b>
No Additional Detail	3	5	4	5	2	-	19
Benign	-	-	1	-	-	-	1
Malignant - Primary	8	45	13	12	20	-	98
Malignant- Secondary	-	1	-	-	2	-	3
<b>Other</b>	<b>17</b>	<b>98</b>	<b>72</b>	<b>137</b>	<b>130</b>	-	<b>454</b>
<b>No Cause Provided</b>	<b>8</b>	<b>103</b>	<b>91</b>	<b>152</b>	<b>177</b>	<b>1</b>	<b>532</b>
<b>All causes <sup>1</sup></b>	<b>67</b>	<b>1 054</b>	<b>960</b>	<b>1 531</b>	<b>1 683</b>	<b>3</b>	<b>5 298</b>

<sup>1</sup> Excludes congenital absence cases.

**Chart 6a** Cause of amputation : 2000/01 including 'No cause provided'



**Chart 6b** Cause of amputation : 2000/01 excluding 'No cause provided'





UK Prosthetics Services  
**MISCELLANEOUS**



## Multiple amputations<sup>1</sup>

The number of multiple amputations are small but this subgroup is important to identify since the care costs for each case can be substantial.

A cross site presentation is defined as the synchronous presentation of upper and lower limb deficiencies.

**Table 13** Multiple amputation ; by prosthetics service centre, cause of amputation<sup>2</sup>, gender and age : 2000/01

Prosthetics Service Centre	Cause of amputation	Males			Total	Females			Total	
		less than 16	16-54	65-74		less than 16	16-54	55-64		
<b>Cross site amputation</b>										
		1	1	1	3	-	1	-	1	4
Belfast	Trauma - No Additional Detail	-	1	-	1	-	-	-	-	1
Cleveland	Other - No Additional Detail	-	-	-	-	-	1	-	1	1
Nottingham	Dysvascularity - No Additional Detail	-	-	1	1	-	-	-	-	1
Wirral	Trauma - Mechanical	1	-	-	1	-	-	-	-	1
<b>Triple amputation</b>										
		1	3	-	4	1	2	-	3	7
London <sup>(Harold Wood)</sup>	Dysvascularity - Disseminated	-	-	-	-	-	-	-	-	-
	Intravascular Coagulation	1	-	-	1	-	1	-	1	2
Oxford <sup>3</sup>	Infection - Acute	-	-	-	-	-	1	-	1	1
Manchester	Trauma - Thermal	-	1	-	1	-	-	-	-	1
	Dysvascularity - No Additional Detail	-	1	-	1	-	-	-	-	1
	Dysvascularity - Diabetes Mellitus	-	1	-	1	-	-	-	-	1
Ringwood	Infection - No Additional Detail	-	-	-	-	1	-	-	1	1
<b>Quadruple amputation</b>										
		-	3	-	3	-	2	1	3	6
Birmingham	No Cause Provided	-	1	-	1	-	-	-	-	1
Cambridge	Other - No Additional Detail	-	1	-	1	-	-	-	-	1
Leicester	Dysvascularity - Venous Disease	-	1	-	1	-	-	-	-	1
London <sup>(Harold Wood)</sup>	Infection - Chronic	-	-	-	-	-	-	1	1	1
London <sup>(Stanmore)</sup>	Infection - Acute	-	-	-	-	-	1	-	1	1
Oxford <sup>3</sup>	Infection - Acute	-	-	-	-	-	1	-	1	1
<b>Total</b>		<b>2</b>	<b>7</b>	<b>1</b>	<b>10</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>17</b>

1 Bilateral upper limb and bilateral lower limb amputations appear in previous tables.

2 Excludes congenital absence cases.

3 1999/00 data.

## Congenital absence

There is an even split in the sex of patients with congenital absence. However, upper limb loss is more common in women (72%) than men (53%). Although patients with congenital limb loss may typically be referred at a young age a sizeable number (36%) presented after the age of 15. A greater percentage of patients with upper limb congenital absence (70%) are under 16 when referred to a prosthetics centre. The comparative percentage for lower limb is 55%.

Table 14 Congenital absence ; by prosthetics service centre, gender and age : 2000/01

Prosthetics Service Centre	Males					Females					Total		
	less than 16	16-54	55-64	65-74	75 and over	All ages	less than 16	16-54	55-64	65-74		75 and over	All ages
<b>Upper limb</b>													
Aberdeen	-	-	-	-	-	-	1	-	-	-	-	1	1
Belfast	-	1	-	-	-	1	2	-	-	-	-	2	3
Birmingham	1	-	-	-	-	1	2	-	-	-	-	2	3
Bristol	2	-	-	-	-	2	2	1	-	-	-	3	5
Cambridge	-	-	-	-	-	-	2	-	1	-	-	3	3
Cardiff	-	-	1	-	-	1	1	-	-	-	-	1	2
Cleveland	-	-	-	-	-	-	1	1	-	-	-	2	2
Derby <sup>1</sup>	1	-	-	-	-	1	-	-	-	-	-	-	1
Exeter	-	-	-	-	-	-	1	-	-	-	-	1	1
Gillingham	-	1	-	-	-	1	2	1	-	-	-	3	4
Glasgow (Westmarc)	3	-	-	-	-	3	1	-	-	-	-	1	4
Leeds	2	-	-	-	-	2	6	2	-	-	-	8	10
Leicester	1	-	1	-	-	2	1	-	-	-	-	1	3
Liverpool (Fazakerley)	1	1	-	-	-	2	-	-	-	-	-	-	2
London (Harold Wood)	3	3	-	-	-	6	3	1	-	-	-	4	10
London (Kings)	1	-	-	-	-	1	-	-	-	-	-	-	1
London (Roehampton)	-	-	-	-	-	-	1	-	-	-	-	1	1
London (Stanmore)	2	-	-	-	-	2	1	-	-	-	-	1	3
Manchester	-	-	-	-	-	-	1	-	-	-	-	1	1
Newcastle	2	-	-	-	-	2	-	2	-	-	1	3	5
Nottingham	2	-	-	-	-	2	-	2	-	-	-	2	4
Oxford <sup>1</sup>	1	1	-	-	-	2	3	-	2	-	-	5	7
Portsmouth	-	-	-	-	-	-	-	-	-	-	1	1	1
Preston	1	-	-	-	-	1	1	1	-	-	-	2	3
Ringwood	-	-	-	-	-	-	1	-	-	-	-	1	1
Sheffield	1	-	-	-	-	1	1	1	-	-	-	2	3
Swansea	2	-	-	-	-	2	-	-	-	-	-	-	2
Wirral	3	1	-	-	-	4	-	-	-	-	-	-	4
<b>Total</b>	<b>29</b>	<b>8</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>39</b>	<b>34</b>	<b>12</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>51</b>	<b>90</b>
<b>Lower limb</b>													
Belfast	1	-	-	-	-	1	-	-	-	-	-	-	1
Birmingham	1	-	-	-	-	1	-	-	-	-	-	-	1
Bristol	1	-	-	-	-	1	-	1	-	-	-	1	2
Cardiff	1	-	-	-	-	1	-	1	-	-	-	1	2
Derby <sup>1</sup>	2	-	-	-	-	2	-	-	-	1	-	1	3
Glasgow (Westmarc)	1	-	-	-	-	1	-	-	-	-	-	-	1
Leeds	-	1	-	-	-	1	-	1	-	-	-	1	2
Leicester	-	1	-	-	-	1	-	1	-	-	-	1	2
Liverpool (Fazakerley)	3	-	-	-	-	3	-	-	-	-	-	-	3
London (Harold Wood)	2	1	-	-	1	4	-	1	-	-	-	1	5
London (Stanmore)	2	1	-	-	-	3	2	1	-	-	-	3	6
London (Kings)	1	1	1	-	-	3	-	1	-	-	-	1	4
Newcastle	-	1	-	-	-	1	-	1	-	-	-	1	2
Norwich	2	-	-	-	-	2	-	-	-	-	-	-	2
Nottingham	-	1	-	-	-	1	-	-	-	-	-	-	1
Oxford <sup>1</sup>	2	-	-	-	-	2	2	1	1	-	-	4	6
Portsmouth	-	-	-	1	-	1	-	-	-	-	-	-	1
Ringwood	2	-	-	-	-	2	-	-	-	-	-	-	2
Sheffield	1	-	-	-	-	1	1	1	-	-	-	2	3
Wirral	1	-	-	-	-	1	1	-	-	-	-	1	2
Wrexham	1	1	-	-	-	2	-	2	-	-	-	2	4
<b>Total</b>	<b>24</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>35</b>	<b>6</b>	<b>12</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>20</b>	<b>55</b>
<b>All congenital absence</b>	<b>53</b>	<b>16</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>74</b>	<b>40</b>	<b>24</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>71</b>	<b>145</b>

1 1999/00 data.

## No level of amputation

This table identifies some of the problems with data quality.

**Table 15** Cases where no level of amputation was provided ; by prosthetics service centre, gender and age : 2000/01

	Males					All ages	Females					Not specified	Total	
	less than 16	16-54	55-64	65-74	75 and over		less than 16	16-54	55-64	65-74	75 and over			All ages
<b>Derby<sup>1</sup></b>	-	-	-	3	-	3	-	2	-	-	-	2	4	9
No Cause Provided	-	-	-	3	-	3	-	2	-	-	-	2	4	9
<b>Edinburgh</b>	-	-	-	-	1	1	-	-	-	-	-	-	-	1
No Cause Provided	-	-	-	-	1	1	-	-	-	-	-	-	-	1
<b>Leeds</b>	-	-	-	-	-	-	1	-	-	-	-	1	-	1
No Cause Provided	-	-	-	-	-	-	1	-	-	-	-	1	-	1
<b>London(Charing Cross)</b>	-	-	-	-	-	-	-	1	-	-	-	1	-	1
No Cause Provided	-	-	-	-	-	-	-	1	-	-	-	1	-	1
<b>London (Stanmore)</b>	-	1	-	-	-	1	-	-	-	-	1	1	-	2
Trauma - Mechanical	-	1	-	-	-	1	-	-	-	-	-	-	-	1
Trauma - Thermal	-	-	-	-	-	-	-	-	-	-	1	1	-	1
<b>Manchester</b>	-	-	-	-	-	-	-	2	-	-	-	2	-	2
Dysvascularity - No Additional Detail	-	-	-	-	-	-	-	1	-	-	-	1	-	1
Other - - No Additional Detail	-	-	-	-	-	-	-	1	-	-	-	1	-	1
<b>Oxford<sup>1</sup></b>	-	-	-	-	-	-	-	1	-	-	-	1	-	1
No Cause Provided	-	-	-	-	-	-	-	1	-	-	-	1	-	1
<b>Preston</b>	1	1	1	1	1	5	-	-	-	-	1	1	-	6
Dysvascularity - Diabetes Mellitus	-	-	-	-	-	-	-	-	-	-	1	1	-	1
Other - No Additional Detail	1	1	1	1	1	5	-	-	-	-	-	-	-	5
<b>Stoke</b>	-	-	-	1	-	1	-	-	-	-	-	-	-	1
No Cause Provided	-	-	-	1	-	1	-	-	-	-	-	-	-	1
<b>Total</b>	1	2	1	5	2	11	1	6	-	-	2	9	4	24

1 1999/00 data.

**Time interval**

Table 16a and 16b illustrate the variation from centre to centre in the time interval between date of amputation and referral. These tables contain valuable information but require careful interpretation. The variation is mainly accounted for by differences in surgical and physiotherapy practice and in the operational policies of centres.

**Table 16a** Time interval between date of amputation and referral ; Inc. congenital absence  
by prosthetics service centre : 2000/01 (cumulative percentage)

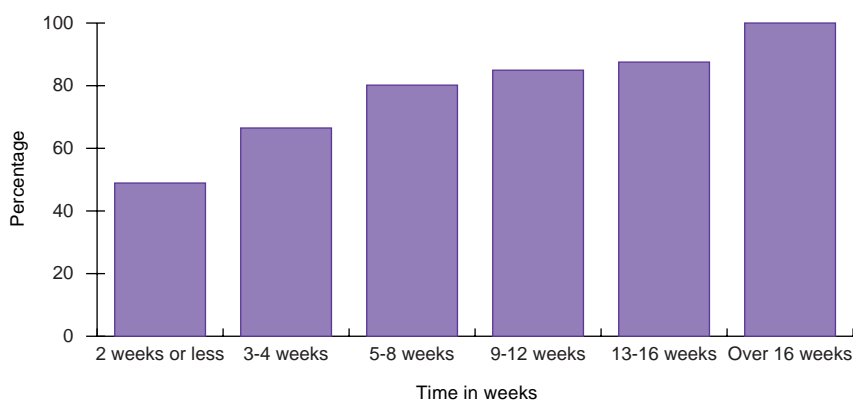
Prosthetics Service Centre	Time interval						Total no. (= 100 %)	No Wait Calculated	Total
	2 weeks or less	4 weeks or less	8 weeks or less	12 weeks or less	16 weeks or less	Over 16 weeks			
	Cumulative percentages <sup>3</sup>								
Aberdeen	33.3	63.6	84.8	90.9	93.9	100.0	33	1	34
Belfast	48.4	74.2	86.0	89.2	91.4	100.0	93	2	95
Birmingham	61.7	74.8	83.6	86.0	88.1	100.0	329	-	329
Bristol	36.1	69.4	86.4	89.1	89.8	100.0	147	-	147
Cambridge	48.3	72.9	86.4	89.0	89.8	100.0	118	-	118
Cardiff	62.2	77.7	85.8	89.2	89.9	100.0	148	-	148
Carlisle	66.7	71.9	84.2	89.5	91.2	100.0	57	-	57
Cleveland	45.3	66.2	76.3	79.1	84.2	100.0	139	-	139
Derby <sup>1</sup>	-	-	-	-	-	-	39	9	48
Dundee	63.1	70.9	80.9	90.8	92.2	100.0	141	1	142
Edinburgh	24.3	54.3	77.1	85.7	88.6	100.0	70	-	70
Exeter	66.9	89.2	97.3	98.6	99.3	100.0	148	-	148
Gillingham	54.5	76.2	81.8	85.3	89.5	100.0	143	2	145
Glasgow (Strathclyde University)	31.8	68.2	88.6	88.6	93.2	100.0	44	-	44
Glasgow (Westmarc)	22.0	62.3	79.2	84.9	86.2	100.0	159	-	159
Hull	45.5	64.8	77.3	80.7	84.1	100.0	88	2	90
Inverness	14.3	28.6	71.4	85.7	92.9	100.0	14	-	14
Isle of Wight	53.8	76.9	92.3	100.0	100.0	100.0	13	2	15
Leeds	22.4	26.3	57.6	75.1	79.5	100.0	205	-	205
Leicester	20.4	22.2	24.1	24.1	31.5	100.0	54	-	54
Liverpool (Fazakerley)	55.6	79.3	85.4	86.9	88.4	100.0	198	-	198
London (Charing Cross)	22.2	41.7	61.1	75.0	83.3	100.0	72	-	72
London (Harold Wood)	35.7	61.8	79.0	82.7	86.8	100.0	272	-	272
London (Kings)	29.1	53.4	71.8	80.6	83.5	100.0	103	-	103
London (Roehampton)	40.4	63.5	78.8	82.7	84.6	100.0	104	2	106
London (Stanmore)	52.8	65.2	74.5	77.6	78.9	100.0	161	1	162
Luton & Dunstable	34.4	64.5	92.5	93.5	96.8	100.0	93	-	93
Manchester	96.0	97.9	98.6	98.6	98.6	100.0	430	-	430
Newcastle	17.3	40.4	71.6	82.7	88.0	100.0	208	-	208
Northampton	28.3	66.0	92.5	94.3	98.1	100.0	53	-	53
Norwich	25.6	29.8	52.9	65.3	74.4	100.0	121	-	121
Nottingham	45.1	59.9	78.2	84.5	86.6	100.0	142	6	148
Oxford <sup>2</sup>	25.3	46.9	66.0	79.0	81.5	100.0	162	-	162
Plymouth	84.1	96.5	100.0	100.0	100.0	100.0	113	1	114
Portsmouth	44.8	68.8	80.2	82.3	85.4	100.0	96	-	96
Preston	46.2	68.9	80.7	85.8	89.6	100.0	212	-	212
Ringwood	64.3	80.6	87.8	88.8	90.8	100.0	98	4	102
Sheffield	67.2	79.0	86.7	89.3	90.0	100.0	271	-	271
Stoke	73.5	82.4	90.2	92.2	93.1	100.0	102	-	102
Sussex	22.0	41.0	65.0	67.0	75.0	100.0	100	-	100
Swansea	78.9	88.7	94.0	94.0	94.0	100.0	133	-	133
Wirral	64.0	75.3	86.5	91.0	91.0	100.0	89	-	89
Wolverhampton	30.1	42.1	78.2	85.0	87.2	100.0	133	-	133
Wrexham	39.5	67.4	75.6	84.9	87.2	100.0	86	-	86
<b>All centres (percentage)</b>	<b>49.3</b>	<b>66.8</b>	<b>80.4</b>	<b>85.1</b>	<b>87.6</b>	<b>100.0</b>			
<b>All centres (number)</b>	<b>2 826</b>	<b>1 007</b>	<b>780</b>	<b>267</b>	<b>143</b>	<b>711</b>	<b>5 734</b>	<b>33</b>	<b>5 767</b>

1 Data for Derby not available.

2 1999/00 data.

3 The cumulative percentage has been calculated excluding cases where no date of amputation has been supplied.

**Chart 7a** Percentage (cumulative) of time taken from amputation to date of referral : 2000/01



There is clearly a very wide variation in practices between centres: practice is a composite of referring hospital and individual centres practice. The intervals recorded will also be affected by intercurrent disease episodes. There is an improvement in all time intervals compared to last year (1999/00).

**Table 16b** Time interval between date of amputation and referral ; Excl. congenital absence  
by prosthetics service centre : 2000/01 (cumulative percentage)

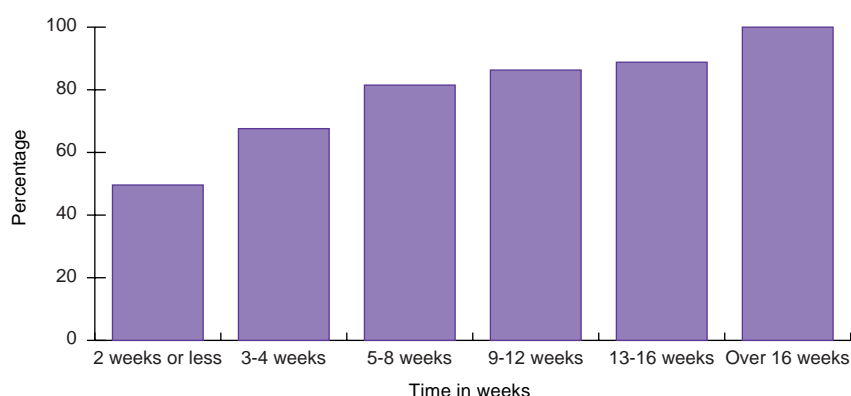
Prosthetics Service Centre	Time interval						Total no. (= 100 %)	No Wait Calculated	Total
	2 weeks or less	4 weeks or less	8 weeks or less	12 weeks or less	16 weeks or less	Over 16 weeks			
	Cumulative percentages <sup>3</sup>								
Aberdeen	34.4	65.6	87.5	93.8	96.9	100.0	32	1	33
Belfast	49.4	76.4	88.8	92.1	93.3	100.0	89	2	91
Birmingham	62.2	75.4	84.3	86.8	88.9	100.0	325	-	325
Bristol	36.4	71.4	89.3	92.1	92.1	100.0	140	-	140
Cambridge	49.6	73.9	87.0	89.6	90.4	100.0	115	-	115
Cardiff	63.9	79.2	87.5	90.3	91.0	100.0	144	-	144
Carlisle	66.7	71.9	84.2	89.5	91.2	100.0	57	-	57
Cleveland	46.0	67.2	77.4	80.3	85.4	100.0	137	-	137
Derby <sup>1</sup>	-	-	-	-	-	-	35	9	44
Dundee	63.1	70.9	80.9	90.8	92.2	100.0	141	1	142
Edinburgh	24.3	54.3	77.1	85.7	88.6	100.0	70	-	70
Exeter	66.7	89.1	97.3	98.6	99.3	100.0	147	-	147
Gillingham	55.4	77.0	82.7	86.3	90.6	100.0	139	2	141
Glasgow (Strathclyde University)	31.8	68.2	88.6	88.6	93.2	100.0	44	-	44
Glasgow (Westmarc)	21.4	63.0	80.5	86.4	87.7	100.0	154	-	154
Hull	45.5	64.8	77.3	80.7	84.1	100.0	88	2	90
Inverness	14.3	28.6	71.4	85.7	92.9	100.0	14	-	14
Isle of Wight	53.8	76.9	92.3	100.0	100.0	100.0	13	2	15
Leeds	21.2	25.4	58.5	77.2	81.9	100.0	193	-	193
Leicester	22.4	24.5	26.5	26.5	34.7	100.0	49	-	49
Liverpool (Fazakerley)	57.0	81.3	87.0	88.6	90.2	100.0	193	-	193
London (Charing Cross)	22.2	41.7	61.1	75.0	83.3	100.0	72	-	72
London (Harold Wood)	35.4	63.0	80.9	84.8	88.7	100.0	257	-	257
London (kings)	29.6	54.1	73.5	81.6	84.7	100.0	98	-	98
London (Roehampton)	40.8	64.1	79.6	83.5	85.4	100.0	103	2	105
London (Stanmore)	54.6	67.8	77.6	80.9	82.2	100.0	152	1	153
Luton & Dunstable	34.4	64.5	92.5	93.5	96.8	100.0	93	-	93
Manchester	96.0	97.9	98.6	98.6	98.6	100.0	429	-	429
Newcastle	16.9	40.3	72.6	84.1	89.1	100.0	201	-	201
Northampton	28.3	66.0	92.5	94.3	98.1	100.0	53	-	53
Norwich	26.1	30.3	53.8	66.4	74.8	100.0	119	-	119
Nottingham	46.0	61.2	79.9	86.3	88.5	100.0	139	4	143
Oxford <sup>3</sup>	27.5	51.0	71.8	81.9	83.9	100.0	149	-	149
Plymouth	84.1	96.5	100.0	100.0	100.0	100.0	113	1	114
Portsmouth	45.7	70.2	81.9	84.0	86.2	100.0	94	-	94
Preston	46.9	69.9	81.8	87.1	90.9	100.0	209	-	209
Ringwood	66.3	83.2	90.5	91.6	92.6	100.0	95	4	99
Sheffield	67.9	80.0	87.5	90.2	90.9	100.0	265	-	265
Stoke	73.5	82.4	90.2	92.2	93.1	100.0	102	-	102
Sussex	22.0	41.0	65.0	67.0	75.0	100.0	100	-	100
Swansea	80.2	90.1	95.4	95.4	95.4	100.0	131	-	131
Wirral	66.3	78.3	90.4	94.0	94.0	100.0	83	-	83
Wolverhampton	30.1	42.1	78.2	85.0	87.2	100.0	133	-	133
Wrexham	41.5	70.7	79.3	89.0	91.5	100.0	82	-	82
<b>All centres (percentage)</b>	<b>50.0</b>	<b>67.9</b>	<b>81.8</b>	<b>86.4</b>	<b>88.9</b>	<b>100.0</b>			
<b>All centres (number)</b>	<b>2 797</b>	<b>1 002</b>	<b>776</b>	<b>258</b>	<b>135</b>	<b>623</b>	5 591	31	5 622

1 Data for Derby not available.

2 1999/00 data.

3 The cumulative percentage has been calculated excluding cases where no date of amputation has been supplied.

**Chart 7b** Percentage (cumulative) of time taken from amputation to date of referral : 2000/01





# APPENDICES

## Number of Estimated Registrations at each Prosthetics Service Centre, 2001

Prosthetics Service Centre	Number of registrations		Total
	Lower Limb	Upper Limb	
Aberdeen	114	436	550
Belfast	1370	314	1684
Birmingham	2974	1084	4058
Bristol**	1547	408	1955
Cambridge**	981	246	1227
Cardiff	1278	329	1607
Carlisle**	386	108	494
Cleveland	960	165	1125
Derby**	356	0	356
Dundee	670	80	750
Edinburgh	1164	284	1448
Exeter	906	224	1130
Gillingham	1589	350	1939
Glasgow (Strathclyde University)	444	109	553
Glasgow (Westmarc)	2899	410	3309
Hull	656	169	825
Inverness	250	41	291
Isle of Wight	156	29	185
Leeds	1927	412	2339
Leicester	470	156	626
Liverpool (Fazakerley)	1144	125	1269
London (Charing Cross)	751	0	751
London (Harold Wood)**	2004	344	2348
London (Kings)	1229	285	1514
London (Roehampton)	2239	747	2986
London (Stanmore)	1463	510	1973
Luton & Dunstable	815	0	815
Manchester	2350	659	3009
Newcastle	1663	368	2031
Northampton	514	99	613
Norwich	1006	234	1240
Nottingham	1357	464	1821
Oxford	1546	288	1834
Plymouth	952	149	1101
Portsmouth**	1517	220	1737
Preston	1319	313	1632
Ringwood	717	111	828
Sheffield**	1636	353	1986
Stoke	1039	0	1039
Sussex	1062	202	1264
Swansea	805	163	968
Wirral**	633	187	820
Wolverhampton	1015	0	1015
Wrexham	765	173	938
<b>Total</b>	<b>50638</b>	<b>11348</b>	<b>61983</b>

\*\*Denotes figures updated in line with caseload data provided for 2001/02 tender round

## Hospital Activity Analysis: UK Upper and Lower Primary Amputations 2000/01

OPCS Code	Operation	England	Scotland	Wales	Northern Ireland	Total
<b>Total</b>		<b>14 238</b>	<b>1,837</b>	<b>947</b>	<b>478</b>	<b>17 500</b>
X07	Amputation of Arm	111	11	5	1	117
X08	Amputation of Hand	3 074	360	258	188	3 520
X09	Amputation of Leg	5 505	802	350	141	5 996
X10	Amputation of Foot	568	64	33	14	615
X11	Amputation of Toe	4 980	600	301	134	5 415

Source: England - DOH - Hospital Episodes, Northern Ireland - Hospital Inpatient Systems, Scotland - ISD Scotland SMR01, Wales - WAREHOUSEDB - Discharges.

- X07 includes forequarter amputation, disarticulation of shoulder, amputation of arm above elbow, amputation of arm through elbow, amputation of arm through forearm and other amputation of arm.
- X08 includes amputation of hand at wrist, amputation of thumb, amputation of phalanx of finger, amputation of finger (nec) and other amputation of hand.
- X09 includes hindquarter amputation, disarticulation of hip, amputation of left above knee, amputation of leg through knee, amputation of leg below knee and other amputation of knee.
- X10 includes amputation of foot through ankle, disarticulation of tarsal bones, disarticulation of metatarsal bones, amputation through metatarsal bones and other amputation of foot.
- X11 includes amputation of great toe, amputation of phalanx of toe and other amputation of toe.

Source: Codes Development and Allocation, Department of Health.

## Minimum Dataset Fields

### Field Name

Patient Number  
Date of Birth  
Purchaser Code  
Centre Code  
Gender  
Is this a New Amputee  
Ethnic Origin

### Left Upper Limb Amputation Details

Date of Referral following a Left Upper Amputation  
Date of Amputation  
Level of Amputation  
Cause of Amputation (Aetiology)

### Right Upper Limb Amputation Details

Date of Referral following a Right Upper Amputation  
Date of Amputation  
Level of Amputation  
Cause of Amputation (Aetiology)

### Left Lower Limb Amputation Details

Date of Referral following a Left Lower Amputation  
Date of Amputation  
Level of Amputation  
Cause of Amputation (Aetiology)

### Right Lower Limb Amputation

Date of Referral following a Right Lower Amputation  
Date of Amputation  
Level of Amputation  
Cause of Amputation (Aetiology)

## List of Level and Cause of Amputation Codes

### Level of Amputation ó Codes used in the Minimum Dataset

#### Upper Limb

01	Forequarter
02	Shoulder Disarticulation
03	Trans-humeral
04	Elbow Disarticulation
05	Trans-radial
06	Wrist Disarticulation
07	Partial Hand
08	Digits

#### Lower Limb

09	Hemi-pelvectomy
10	Hip Disarticulation
11	Trans-femoral
12	Knee Disarticulation
13	Trans-tibial
14	Ankle Disarticulation (Syme)
15	Partial Foot
16	Digits

### Cause of Amputation (Aetiology) — Codes used in the Minimum Dataset

#### Trauma

1.0	No Additional Detail
1.1	Mechanical
1.2	Electrical
1.3	Thermal
1.4	Chemical

#### Dysvascularity

2.0	No Additional Detail
2.1	Diabetes Mellitus
2.2	Non-diabetic Arteriosclerosis
2.3	Embolism
2.4	Vasospastic Conditions (inc. Raynaud's)
2.5	Disseminated Intravascular Coagulation
2.6	Endovascular Chemical Trauma (= Substance Abuse)
2.7	Buerger's Disease
2.8	Iatrogenic Vascular Trauma
2.9	Arteritis (inc. Rheumatoid Arthritis, Autoimmune Disease)
2.A	Venous Disease

#### Infection

3.0	No Additional Detail
3.1	Acute
3.2	Chronic

#### Neurological Disorder

4.0	No Additional Detail
4.1	Diabetic Neuropathy
4.2	Infective (inc. Leprosy, Madura Foot)
4.3	Spina Bifida
4.4	Poliomyelitis
4.5	Peripheral Nerve Injury

#### Neoplasia

5.0	No Additional Detail
5.1	Benign
5.2	Malignant - Primary
5.3	Malignant - Secondary

#### Congenital Absence

6.0	No Additional Detail
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#### Other

7.0	No Additional Detail
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## List of Prosthetics Service Centres (PSC) Submitting Data

Location	Centre Name
Aberdeen	Grampian Primary Care NHS Trust
Belfast	Musgrave Park Hospital
Birmingham	West Midlands Regional Rehabilitation Centre
Bristol	Southmead Hospital
Cambridge	Addenbrookes Disablement Services Centre
Cardiff	Rookwood Artificial Limb Appliance Centre
Carlisle	Carlisle PSC
Cleveland	Cleveland PSC
Derby	Derby Limb Centre
Dundee	Dundee Limb Fitting Centre
Edinburgh	Rehabilitation Engineering Services
Exeter	Exeter Mobility Centre
Gillingham	Gillingham PSC
Glasgow (Strathclyde University)	University of Strathclyde
Glasgow (Westmarc)	Westmarc
Hull	East Yorkshire Artificial Limb Unit
Inverness	Orthotics and Limb Fitting Services
Isle of Wight	The Prosthetics, Orthotics and Podiatry Department
Leeds	Prosthetics Dept.
Leicester	Leicestershire PSC
Liverpool (Fazakerley)	The Donald Tod Rehabilitation Centre
London (Charing Cross)	Holderness Limb Fitting Centre
London (Harold Wood)	Harold Wood PSC
London (Kings)	Kings College Rehabilitation
London (Roehampton)	Roehampton Rehabilitation Centre
London (Stanmore)	Stanmore PSC
Luton & Dunstable	Luton & Dunstable Limb Fitting Centre
Manchester	Manchester PSC
Newcastle	Newcastle PSC
Northampton	Northampton Artificial Limb Service
Norwich	Norwich PSC
Nottingham	Nottingham Mobility Centre
Oxford	The Mary Marlborough Centre
Plymouth	Plymouth PSC
Portsmouth	Portsmouth PSC
Preston	Preston PSC
Ringwood	Dorset Artificial Limb Centre
Sheffield	Sheffield Mobility and Specialised Rehabilitation Centre
Stoke	North Midlands Limb Fitting Centre
Sussex	Brighton Rehabilitation Centre
Swansea	Morrison Artificial Limb & Appliance Centre
Wirral	Wirral Limb Centre
Wolverhampton	Maltings Mobility Centre
Wrexham	Wrexham Artificial Limb and Appliance Centre