

**Table 105 (page 1 of 3). Cost of hospital discharges with common hospital operating room procedures in nonfederal community hospitals, by age and selected principal procedure: United States, selected years 2000–2012**

Updated data when available, Excel, and PDF: <http://www.cdc.gov/nchs/hus/contents2014.htm#105>.

[Data are compiled by the Agency for Healthcare Research and Quality using discharge data from participating states]

Age and principal operating room procedure <sup>1</sup>	Mean inflation-adjusted cost per hospitalization: 2012 dollars <sup>2</sup>			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2012 dollars (in millions)		
	2000	2005	2012	2000	2005	2012	2000	2005	2012
All ages									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	\$13,317	\$15,980	\$18,521	8,743,631	9,964,151	8,870,290	\$115,725	\$159,370	\$164,141
Laminectomy (back surgery) . . . . .	8,207	9,293	13,384	285,636	248,800	184,060	2,354	2,313	2,478
Heart valve procedures . . . . .	43,107	52,827	52,625	79,719	93,802	104,200	3,430	4,975	5,481
Coronary artery bypass graft (CABG) . . . . .	31,425	38,266	40,142	337,972	221,325	153,635	10,657	8,483	6,170
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart) . . . . .	15,063	18,559	19,225	581,183	727,912	455,635	8,753	13,516	8,767
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator . . . . .	27,789	35,585	35,028	66,286	160,629	100,270	1,856	5,709	3,509
Colorectal resection (removal of part of the bowel) . . . . .	19,560	22,789	23,204	253,780	274,599	249,415	5,067	6,266	5,783
Appendectomy . . . . .	7,359	8,542	9,649	269,089	298,829	226,210	1,959	2,552	2,188
Cholecystectomy (gall bladder removal) . . . . .	10,447	12,152	12,846	389,079	376,158	337,575	4,030	4,572	4,344
Hysterectomy . . . . .	6,562	7,300	9,799	580,019	550,659	266,400	3,779	4,027	2,612
Cesarean section . . . . .	5,456	5,487	5,892	898,859	1,258,990	1,159,970	4,789	6,913	6,839
Treatment, fracture or dislocation of hip and femur . . . . .	12,633	15,353	17,309	237,615	251,071	233,705	3,052	3,852	4,045
Arthroplasty knee (knee replacement) . . . . .	13,873	15,691	16,556	318,854	533,216	671,374	4,398	8,370	11,117
Hip replacement . . . . .	15,045	17,171	17,486	295,940	369,634	436,815	4,507	6,340	7,637
Spinal fusion . . . . .	17,509	24,954	28,190	204,320	322,610	406,995	3,492	8,060	11,484
Under 18 years									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	13,366	19,442	25,470	382,455	535,472	343,670	4,940	10,365	8,697
Incision and excision of CNS (a type of brain surgery) . . . . .	29,016	35,228	43,217	6,352	11,436	7,600	177	405	327
Tonsillectomy and/or adenoidectomy . . . . .	4,443	5,748	7,041	12,045	16,288	11,145	55	95	79
Small bowel resection (removal of part of the small bowel) . . . . .	36,440	50,816	46,904	1,712	2,993	2,125	62	150	99
Appendectomy . . . . .	6,603	8,160	9,158	75,481	85,790	60,045	485	700	551
Cesarean section . . . . .	6,058	5,756	6,118	23,690	28,609	15,945	130	165	98
Spinal fusion . . . . .	29,437	46,330	56,398	7,463	12,880	10,170	217	591	571
18–44 years									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	8,800	9,960	11,819	2,806,078	3,101,461	2,571,636	24,163	30,922	30,371
Incision and excision of CNS (a type of brain surgery) . . . . .	25,586	30,692	37,981	19,510	18,229	17,890	480	563	678
Laminectomy (back surgery) . . . . .	7,385	8,654	12,342	95,687	67,321	37,080	712	583	459
Appendectomy . . . . .	6,779	7,773	8,721	133,662	135,504	97,850	894	1,053	855
Cholecystectomy (gall bladder removal) . . . . .	8,556	9,458	10,287	132,538	128,987	119,540	1,089	1,221	1,232
Oophorectomy (removal of one or both ovaries) . . . . .	6,379	7,427	10,150	38,252	33,384	20,150	247	248	205
Ligation of fallopian tubes (“tying” of fallopian tubes) . . . . .	4,717	4,544	6,016	75,221	74,449	61,305	335	338	369
Hysterectomy . . . . .	6,084	6,628	8,856	291,704	255,025	108,685	1,749	1,692	963
Cesarean section . . . . .	5,439	5,477	5,884	873,231	1,226,170	1,140,550	4,647	6,721	6,715
Treatment, fracture or dislocation of lower extremity (other than hip or femur) . . . . .	9,376	11,904	15,044	68,015	59,527	47,940	627	708	722
Spinal fusion . . . . .	16,460	23,113	26,096	73,228	87,276	73,515	1,165	2,018	1,919

See footnotes at end of table.

**Table 105 (page 2 of 3). Cost of hospital discharges with common hospital operating room procedures in nonfederal community hospitals, by age and selected principal procedure: United States, selected years 2000–2012**

Updated data when available, Excel, and PDF: <http://www.cdc.gov/nchs/hus/contents2014.htm#105>.

[Data are compiled by the Agency for Healthcare Research and Quality using discharge data from participating states]

Age and principal operating room procedure <sup>1</sup>	Mean inflation-adjusted cost per hospitalization: 2012 dollars <sup>2</sup>			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2012 dollars (in millions)		
	2000	2005	2012	2000	2005	2012	2000	2005	2012
<b>45–64 years</b>									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	\$14,568	\$17,528	\$20,776	2,435,212	2,909,930	2,806,265	\$35,322	\$51,076	\$58,220
Laminectomy (back surgery) . . . . .	8,279	9,174	14,122	107,720	96,084	73,155	893	883	1,038
Heart valve procedures. . . . .	40,489	48,406	50,948	22,849	26,650	28,145	920	1,298	1,434
Coronary artery bypass graft (CABG). . . . .	29,362	35,053	38,570	139,897	94,742	67,190	4,127	3,328	2,594
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart) . . . . .	14,578	17,923	18,892	252,151	318,811	202,975	3,668	5,718	3,837
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator. . . . .	34,034	38,618	37,351	15,957	44,029	29,575	539	1,699	1,103
Colorectal resection (removal of part of the bowel) . . . . .	17,594	20,300	21,803	76,604	95,108	95,070	1,374	1,933	2,071
Cholecystectomy (gall bladder removal) . . . . .	9,853	11,700	12,891	117,432	117,636	108,565	1,157	1,379	1,402
Oophorectomy . . . . .	7,637	8,738	12,333	21,232	22,459	22,780	162	196	280
Hysterectomy . . . . .	6,693	7,443	9,941	231,498	242,030	123,495	1,546	1,805	1,228
Arthroplasty knee (knee replacement) . . . . .	14,193	15,744	16,710	95,902	199,682	281,825	1,355	3,144	4,710
Hip replacement. . . . .	15,635	17,416	17,364	65,118	105,138	152,480	1,026	1,828	2,647
Spinal fusion . . . . .	16,805	23,196	26,806	87,388	150,313	195,235	1,431	3,490	5,237
<b>65–74 years</b>									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	16,321	19,492	21,488	1,511,467	1,602,345	1,630,700	24,797	31,284	35,019
Laminectomy (back surgery) . . . . .	8,673	9,264	12,894	45,976	45,731	41,735	399	424	543
Heart valve procedures. . . . .	44,119	53,721	51,726	23,236	24,774	27,895	1,016	1,335	1,444
Coronary artery bypass graft (CABG). . . . .	31,979	39,029	39,725	112,652	70,404	51,505	3,600	2,750	2,047
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart) . . . . .	14,996	18,386	19,340	166,497	196,855	122,225	2,493	3,621	2,364
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator. . . . .	30,360	36,723	36,133	19,096	44,900	27,275	583	1,646	985
Endarterectomy (plaque removal from artery lining brain, head, neck) . . . . .	8,740	9,377	10,395	51,292	40,715	31,305	460	383	326
Colorectal resection (removal of part of the bowel) . . . . .	19,670	23,087	23,429	63,693	62,337	60,115	1,291	1,442	1,407
Cholecystectomy (gall bladder removal) . . . . .	11,542	13,864	14,866	65,953	55,566	50,890	774	771	758
Arthroplasty knee (knee replacement) . . . . .	14,130	15,643	16,372	110,961	177,306	233,810	1,553	2,776	3,829
Hip replacement. . . . .	14,986	16,885	17,322	71,986	86,918	115,385	1,094	1,467	1,998
Spinal fusion . . . . .	18,507	26,788	29,263	23,419	47,031	88,200	432	1,260	2,584
<b>75–84 years</b>									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	16,567	20,146	21,475	1,224,573	1,360,428	1,094,565	20,583	27,442	23,513
Laminectomy (back surgery) . . . . .	9,358	10,164	12,818	31,059	31,945	25,285	293	325	326
Heart valve procedures. . . . .	45,508	56,607	52,882	21,004	25,070	28,010	967	1,425	1,480
Coronary artery bypass graft (CABG). . . . .	34,672	43,386	44,119	68,750	45,187	27,290	2,403	1,962	1,203
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart) . . . . .	15,877	19,647	19,715	111,169	144,906	81,495	1,776	2,847	1,609
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator. . . . .	24,903	34,513	34,021	19,975	48,557	25,735	507	1,673	875
Endarterectomy (plaque removal from artery lining brain, head, neck) . . . . .	9,079	9,721	10,813	45,337	38,073	24,980	425	372	270
Colorectal resection (removal of part of the bowel) . . . . .	21,451	25,600	25,201	62,096	61,238	44,120	1,368	1,568	1,111
Cholecystectomy (gall bladder removal) . . . . .	13,229	16,353	16,298	52,448	49,823	38,025	709	814	620
Treatment, fracture or dislocation of hip and femur . . . . .	11,895	14,308	15,892	73,332	72,878	61,615	898	1,044	980
Arthroplasty knee (knee replacement) . . . . .	14,124	15,743	16,370	79,138	121,865	123,025	1,119	1,919	2,015
Hip replacement. . . . .	14,806	17,041	17,538	92,715	105,580	96,635	1,395	1,797	1,695
Spinal fusion . . . . .	19,256	27,950	29,264	11,770	22,902	35,875	226	640	1,052

See footnotes at end of table.

**Table 105 (page 3 of 3). Cost of hospital discharges with common hospital operating room procedures in nonfederal community hospitals, by age and selected principal procedure: United States, selected years 2000–2012**

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[Data are compiled by the Agency for Healthcare Research and Quality using discharge data from participating states]

Age and principal operating room procedure <sup>1</sup>	Mean inflation-adjusted cost per hospitalization: 2012 dollars <sup>2</sup>			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2012 dollars (in millions)		
	2000	2005	2012	2000	2005	2012	2000	2005	2012
85 years and over									
Hospital discharges with an operating room principal procedure <sup>3</sup> . . . . .	\$15,190	\$18,535	\$19,622	382,341	434,936	421,815	\$5,898	\$8,069	\$8,289
Heart valve procedures. . . . .	47,840	60,719	49,972	2,985	3,957	9,215	143	240	460
Coronary artery bypass graft (CABG). . . . .	39,005	49,965	49,855	5,280	4,174	2,960	204	209	147
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart) . . . . .	18,019	21,913	20,570	16,682	28,942	23,985	298	633	494
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator. . . . .	14,779	25,124	25,449	7,071	13,675	10,355	107	343	264
Colorectal resection (removal of part of the bowel) . . . . .	23,180	27,405	25,980	20,729	20,456	16,990	491	561	441
Cholecystectomy (gall bladder removal) . . . . .	16,099	18,157	17,693	15,698	16,732	15,045	256	303	267
Treatment, fracture or dislocation of hip and femur . . . . .	11,582	13,738	15,361	76,900	77,692	74,205	917	1,069	1,141
Arthroplasty knee . . . . .	14,320	16,536	17,241	10,122	15,784	17,245	146	261	297
Hip replacement. . . . .	14,397	17,111	17,843	50,005	53,975	54,755	731	923	977
Amputation of lower extremity (amputation of leg, foot or toe) . . . . .	13,289	17,178	17,269	12,855	10,029	7,610	173	173	132

<sup>1</sup>Data are based on valid operating room procedures. Operating room procedures were identified using the Centers for Medicare & Medicaid Services' Diagnosis Related Groups (DRGs). For DRGs, physician panels identified *International Classification of Diseases* (ICD–9-CM) procedure codes that would be performed in operating rooms in most hospitals. Operating room procedures, as defined by DRGs, are classified by the Clinical Classifications Software (CCS) into 1 of 231 clinically meaningful categories. Mean costs per hospitalization are based on the principal procedure as determined by the CCS. The number of discharges is based on the first-listed (principal) major procedure. See Appendix II, Procedure.

<sup>2</sup>Charges (the amount billed by the hospital) were converted to costs using cost-charge ratios from the Centers for Medicare & Medicaid Services. Costs are for the entire hospitalization including the principal procedure. Costs were adjusted for inflation to 2012 dollars using the gross domestic product deflator (<http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1>, Table 1.1.4. Price Indexes for Gross Domestic Product, accessed on August 25, 2014). See Appendix II, Cost-charge ratio.

<sup>3</sup>Includes discharges for operating room principal procedures not shown separately.

NOTES: Excludes newborn infants. The number of states participating in the sample varied over time from 28 states in 2000 to 46 in 2011 and 44 in 2012. See Appendix I, Healthcare Cost and Utilization Project (HCUP), Nationwide Inpatient Sample, for a list of states available in each year. In 2012, the HCUP-NIS was redesigned and changed from a sample of hospitals to a sample of discharges from all participating community hospitals. The estimates are weighted to provide national estimates. Because of sampling frame and methodological differences between the Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, and the National Hospital Discharge Survey (NHDS), estimates from these data sources are not directly comparable. Standard errors are available in the spreadsheet version of this table. Available from: <http://www.cdc.gov/nchs/hus.htm>. Data for additional years are available. See the Excel spreadsheet on the *Health, United States* website at: <http://www.cdc.gov/nchs/hus.htm>. Data have been revised and differ from previous editions of *Health, United States*.

SOURCE: Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, National (Nationwide) Inpatient Sample. See Appendix I, Healthcare Cost and Utilization Project (HCUP), National (Nationwide) Inpatient Sample.