

Table 96 (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 2000–2013

Updated data when available, Excel, and PDF: <http://www.cdc.gov/nchs/hus/contents2015.htm#096>.

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

Age and principal operating room procedure ¹	Mean inflation-adjusted cost per hospitalization: 2013 dollars ²			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2013 dollars (in millions) ²		
	2000	2005	2013	2000	2005	2013	2000	2005	2013
All ages									
Hospital discharges with an operating room principal procedure ³	\$13,541	\$16,248	\$18,780	8,743,631	9,964,151	8,414,072	\$117,663	\$162,038	\$157,891
Laminectomy (back surgery)	8,345	9,448	14,064	285,636	248,800	167,380	2,393	2,352	2,363
Heart valve procedures	43,829	53,711	51,415	79,719	93,802	102,425	3,488	5,058	5,264
Coronary artery bypass graft (CABG)	31,952	38,907	41,274	337,972	221,325	157,720	10,836	8,625	6,510
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart)	15,314	18,871	20,924	581,183	727,912	403,550	8,899	13,743	8,454
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	28,254	36,181	35,074	66,286	160,629	87,465	1,887	5,804	3,067
Colorectal resection (removal of part of the bowel)	19,887	23,171	23,446	253,780	274,599	237,285	5,152	6,371	5,562
Appendectomy	7,483	8,685	10,190	269,089	298,829	201,700	1,991	2,594	2,061
Cholecystectomy (gall bladder removal)	10,622	12,356	13,090	389,079	376,158	318,145	4,097	4,649	4,168
Hysterectomy	6,671	7,423	10,122	580,019	550,659	211,050	3,842	4,094	2,138
Cesarean section	5,547	5,579	6,054	898,859	1,258,990	1,136,704	4,869	7,028	6,887
Treatment, fracture or dislocation of hip and femur	12,844	15,610	17,177	237,615	251,071	241,510	3,103	3,917	4,148
Arthroplasty knee (knee replacement)	14,106	15,954	16,497	318,854	533,216	700,740	4,471	8,510	11,563
Hip replacement	15,296	17,459	17,337	295,940	369,634	457,195	4,582	6,447	7,927
Spinal fusion	17,802	25,373	28,696	204,320	322,610	405,245	3,551	8,194	11,635
Under 18 years									
Hospital discharges with an operating room principal procedure ³	13,589	19,768	26,307	382,455	535,472	312,630	5,022	10,539	8,185
Incision and excision of CNS (a type of brain surgery)	29,501	35,818	44,842	6,352	11,436	7,385	181	411	328
Tonsillectomy and/or adenoidectomy	4,517	5,844	7,381	12,045	16,288	9,830	56	96	73
Small bowel resection (removal of part of the small bowel)	37,050	51,668	51,450	1,712	2,993	1,735	62	153	89
Appendectomy	6,713	8,297	9,894	75,481	85,790	52,160	493	712	516
Cesarean section	6,159	5,852	6,173	23,690	28,609	13,735	132	167	85
Spinal fusion	29,930	47,106	56,920	7,463	12,880	10,580	221	601	599
18–44 years									
Hospital discharges with an operating room principal procedure ³	8,948	10,127	11,969	2,806,078	3,101,461	2,392,184	24,568	31,439	28,611
Incision and excision of CNS (a type of brain surgery)	26,014	31,206	36,661	19,510	18,229	17,505	488	572	641
Laminectomy (back surgery)	7,509	8,799	13,129	95,687	67,321	31,755	723	593	419
Appendectomy	6,892	7,902	9,146	133,662	135,504	84,790	908	1,071	778
Cholecystectomy (gall bladder removal)	8,700	9,617	10,671	132,538	128,987	112,165	1,107	1,242	1,200
Oophorectomy (removal of one or both ovaries)	6,486	7,552	10,650	38,252	33,384	19,015	251	252	202
Ligation of fallopian tubes (“tying” of fallopian tubes)	4,796	4,620	7,150	75,221	74,449	34,365	340	344	243
Hysterectomy	6,186	6,740	9,231	291,704	255,025	83,310	1,779	1,721	769
Cesarean section	5,530	5,569	6,045	873,231	1,226,170	1,119,309	4,725	6,833	
Treatment, fracture or dislocation of lower extremity (other than hip or femur)	9,533	12,103	16,582	68,015	59,527	46,080	637	720	763
Spinal fusion	16,735	23,501	26,766	73,228	87,276	67,645	1,185	2,052	1,811

See footnotes at end of table.

Table 96 (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 2000–2013

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

Age and principal operating room procedure ¹	Mean inflation-adjusted cost per hospitalization: 2013 dollars ²			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2013 dollars (in millions) ²		
	2000	2005	2013	2000	2005	2013	2000	2005	2013
45–64 years									
Hospital discharges with an operating room principal procedure ³	\$14,812	\$17,822	\$20,923	2,435,212	2,909,930	2,653,754	\$35,913	\$51,931	\$55,450
Laminectomy (back surgery)	8,417	9,328	14,619	107,720	96,084	66,415	908	897	974
Heart valve procedures	41,166	49,216	49,346	22,849	26,650	26,270	935	1,319	1,297
Coronary artery bypass graft (CABG)	29,854	35,640	39,557	139,897	94,742	65,095	4,196	3,384	2,575
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart)	14,822	18,223	20,386	252,151	318,811	179,935	3,730	5,814	3,675
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	34,603	39,265	37,353	15,957	44,029	25,785	548	1,728	962
Colorectal resection (removal of part of the bowel)	17,889	20,639	22,075	76,604	95,108	89,920	1,398	1,966	1,985
Cholecystectomy (gall bladder removal)	10,019	11,897	12,981	117,432	117,636	103,040	1,177	1,402	1,339
Oophorectomy	7,765	8,885	12,913	21,232	22,459	23,285	165	199	300
Hysterectomy	6,805	7,568	10,170	231,498	242,030	99,070	1,573	1,835	1,008
Arthroplasty knee (knee replacement)	14,430	16,008	16,680	95,902	199,682	288,955	1,377	3,197	4,820
Hip replacement	15,897	17,707	17,229	65,118	105,138	161,640	1,043	1,859	2,785
Spinal fusion	17,087	23,584	27,182	87,388	150,313	192,890	1,454	3,548	5,246
65–74 years									
Hospital discharges with an operating room principal procedure ³	16,594	19,819	21,637	1,511,467	1,602,345	1,614,725	25,212	31,808	34,922
Laminectomy (back surgery)	8,818	9,418	13,755	45,976	45,731	39,185	406	431	541
Heart valve procedures	44,858	54,620	50,611	23,236	24,774	27,265	1,033	1,357	1,380
Coronary artery bypass graft (CABG)	32,514	39,683	40,825	112,652	70,404	55,040	3,661	2,796	2,247
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart)	15,247	18,693	20,981	166,497	196,855	108,310	2,534	3,682	2,274
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	30,868	37,338	36,361	19,096	44,900	23,365	592	1,675	848
Enderterectomy (plaque removal from artery lining brain, head, neck)	8,886	9,534	10,707	51,292	40,715	30,710	467	389	329
Colorectal resection (removal of part of the bowel)	19,999	23,474	23,221	63,693	62,337	59,650	1,313	1,466	1,384
Cholecystectomy (gall bladder removal)	11,736	14,096	14,976	65,953	55,566	48,440	787	783	726
Arthroplasty knee (knee replacement)	14,367	15,905	16,219	110,961	177,306	255,495	1,579	2,823	4,146
Hip replacement	15,237	17,168	17,156	71,986	86,918	125,935	1,113	1,491	2,160
Spinal fusion	18,817	27,237	29,430	23,419	47,031	93,200	438	1,282	2,744
75–84 years									
Hospital discharges with an operating room principal procedure ³	16,844	20,484	21,837	1,224,573	1,360,428	1,036,865	20,927	27,902	22,647
Laminectomy (back surgery)	9,514	10,333	13,278	31,059	31,945	23,195	298	330	310
Heart valve procedures	46,270	57,554	51,773	21,004	25,070	28,635	984	1,449	1,482
Coronary artery bypass graft (CABG)	35,253	44,112	45,346	68,750	45,187	30,025	2,443	1,995	1,361
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart)	16,143	19,976	22,065	111,169	144,906	70,560	1,806	2,895	1,558
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	25,320	35,091	34,053	19,975	48,557	22,500	515	1,701	767
Enderterectomy (plaque removal from artery lining brain, head, neck)	9,230	9,884	11,111	45,337	38,073	23,750	432	377	264
Colorectal resection (removal of part of the bowel)	21,810	26,029	25,187	62,096	61,238	41,135	1,391	1,594	1,035
Cholecystectomy (gall bladder removal)	13,450	16,626	16,666	52,448	49,823	35,420	720	827	589
Treatment, fracture or dislocation of hip and femur	12,095	14,547	16,064	73,332	72,878	63,090	913	1,062	1,014
Arthroplasty knee (knee replacement)	14,360	16,007	16,381	79,138	121,865	125,790	1,138	1,951	2,061
Hip replacement	15,053	17,326	17,378	92,715	105,580	97,705	1,418	1,828	1,698
Spinal fusion	19,579	28,418	30,094	11,770	22,902	36,895	229	651	1,110

See footnotes at end of table.

Table 96 (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 2000–2013

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

Age and principal operating room procedure ¹	Mean inflation-adjusted cost per hospitalization: 2013 dollars ²			Number of discharges with operating room principal procedure			Total inflation-adjusted national costs: 2013 dollars (in millions) ²		
	2000	2005	2013	2000	2005	2013	2000	2005	2013
85 years and over									
Hospital discharges with an operating room principal procedure ³	\$15,444	\$18,846	\$19,999	382,341	434,936	402,235	\$5,997	\$8,204	\$8,054
Heart valve procedures	48,641	61,736	52,006	2,985	3,957	10,650	145	244	553
Coronary artery bypass graft (CABG)	39,659	50,802	47,898	5,280	4,174	3,345	207	213	160
Percutaneous coronary angioplasty (PTCA) (balloon angioplasty of heart)	18,321	22,279	22,408	16,682	28,942	21,740	303	644	487
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator.	15,027	25,544	26,001	7,071	13,675	9,175	109	348	240
Colorectal resection (removal of part of the bowel)	23,568	27,864	25,578	20,729	20,456	15,935	499	570	408
Cholecystectomy (gall bladder removal)	16,368	18,461	17,606	15,698	16,732	14,080	260	308	248
Treatment, fracture or dislocation of hip and femur	11,777	13,968	15,627	76,900	77,692	76,795	932	1,087	1,202
Arthroplasty knee	14,559	16,813	17,611	10,122	15,784	16,880	148	265	297
Hip replacement	14,638	17,397	17,737	50,005	53,975	54,380	743	938	965
Amputation of lower extremity (amputation of leg, foot or toe)	13,511	17,465	17,250	12,855	10,029	7,535	176	175	130

¹Data 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.

²Charges (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 2013 dollars using the gross domestic product deflator Table 1.1.4. Price Indexes downloaded from <https://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1> on October, 13, 2015. See Appendix II, Cost-charge ratio.

³Includes 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, 44 in 2012, and 43 states and D.C. in 2013. See Appendix I, Healthcare Cost and Utilization Project (HCUP), National (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. For this report, the statistics for years prior to 2012 were regenerated using new trend weights taking into account the 2012 redesign. For more information on the 2012 redesign, see: Houchens R, Ross D, Elixhauser A, Jiang J. Nationwide Inpatient Sample (NIS) redesign final report. 2014. HCUP methods series report # 2014–04 ONLINE. April 4, 2014. U.S. Agency for Healthcare Research and Quality. Available from: <http://www.hcup-us.ahrq.gov/reports/methods/2014-04.pdf>. The estimates are weighted to provide national estimates. 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.