

Reliability Report Spring 2022

IMPLANTABLE COCHLEAR STIMULATORS AND SOUND PROCESSORS

POWERFUL CONNECTIONS



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OUR MISSION

At Advanced Bionics, we are dedicated to improving lives by developing implantable technologies and services that help our recipients achieve their full potential.

Our commitment to putting patients first and providing the best possible hearing performance remains at the forefront of all that we do. The trust patients place in us inspires us to act with integrity and transparency as we strive for excellence each and every day.

This reliability report is an example of our commitment to open and transparent communication with you.

REPORTING ON RELIABILITY

Advanced Bionics remains dedicated to transparency and accuracy in reliability reporting.

To ensure that patients and professionals globally understand Advanced Bionics product performance, AB reports reliability data for each type, and significant variant of that type, of Cochlear Implant Stimulators (commonly referred to as implants) semi-annually.

Reporting utilizes methodologies recommended by both the International Organization for Standardization in **ISO 5841-2:2014**¹, the principles outlined in the European Consensus on Cochlear Implant Failures and Explanations²; and **ANSI/AAMI CI86** - Cochlear Implant Systems: Requirements for Safety, Functional Verification, Labeling and Reliability Reporting³.

For each type of implant, the number of recipients and the Cumulative Survival Rate (CSR) is shared. The number of recipients using each implant is displayed as a table detailing adults and children, as well as a combination of both, in accordance with ISO 5841-2:2014 and ANSI/AAMI CI86. Separate graphs for each reporting standard exhibit the CSR.

Reliability of each currently-available sound processor is also reported utilizing methodologies that meet the recommendations of ANSI/AAMI Cl86 - Cochlear Implant Systems: Requirements for Safety, Functional Verification, Labeling and Reliability Reporting³.

- 1. ISO 5841-2 (2014) Implants for Surgery Cardiac Pacemakers. International Organization for Standardization (ISO), Geneva, Switzerland.
- 2. European Consensus Statement on Cochlear Implant Failures and Explanations. (2005) Otology and Neurology, 26(6): 1097-1099.
- 3. ANSI/AAMI Cl86. Cochlear Implant Systems: Requirements for Safety, Functional Verification, Labeling and Reliability Reporting. (2017). Arlington, VA: American National Standards Institute.

INTERPRETING TABLES AND GRAPHS

IMPLANTABLE COCHLEAR STIMULATORS

Number of registered HiRes 90K Advantage implants

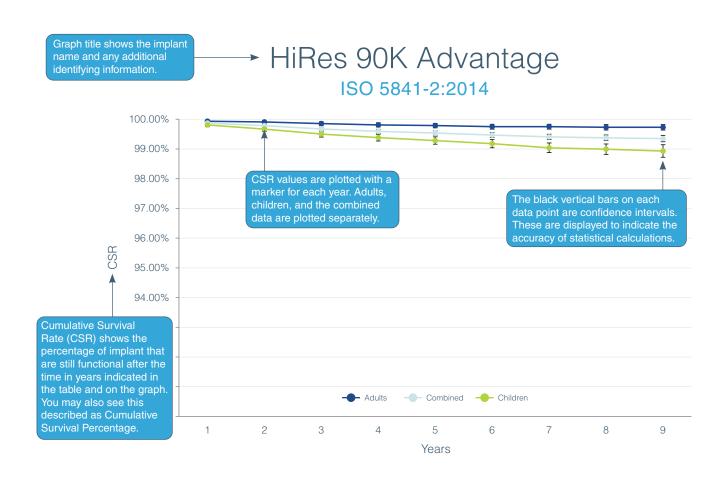
As of March 31, 2022.

Date of first commercial introduction^a: 2012.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	15344	20426	38102 ^b
ANSI/AAMI CI86	19659°	18443	38102

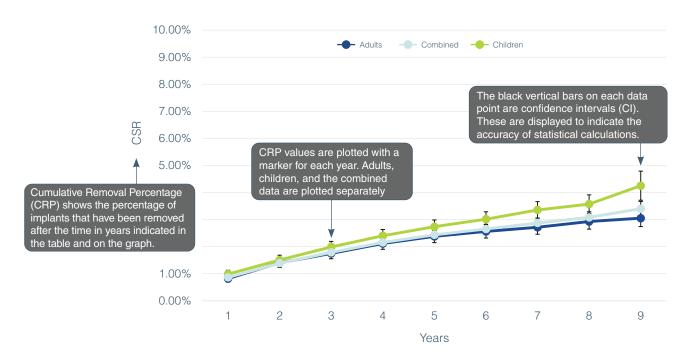
Number of registered users is detailed for adults, children and a combination of all ages in accordance with reporting methodologies.

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.



Years in use					5	6			9	Detailed CSR percentages
ADULTS	99.93%	99.91%	99.85%	99.81%	99.79%	99.75%	99.75%	99.73%	99.73%	are shown for each year
COMBINED	99.87%	99.78%	99.67%	99.59%	99.54%	99.47%	99.41%	99.37%	99.35% <	in the table. Results are shown as: adult, children
CHILDREN	99.81%	99.67%	99.50%	99.38%	99.28%	99.18%	99.04%	98.99%	98.93%	and combined total.





The ANSI/AAMI CI86 Standard requires that all removed devices are classified into three categories based on the rationale for explantation: device failure, medical reason, or inconclusive.

COMBINED ADULT AND CHILDREN

Voor	Medical CRP	Davies CDD	Inconclusive CRP	Total All Catagories	Total	
Year	Medical CRP	Device CRP	inconclusive CRP	Total All Categories	CI Up	CI Down
1	0.80%	0.13%	0.02%	0.87%	0.96%	0.77%
2	1.25%	0.23%	0.03%	1.39%	1.51%	1.27%
3	1.54%	0.34%	0.04%	1.79%	1.92%	1.65%
4	1.80%	0.43%	0.06%	2.16%	2.31%	2.01%
5	2.00%	0.50%	0.08%	2.44%	2.60%	2.27%
6	2.14%	0.57%	0.09%	2.65%	2.82%	2.48%
7	2.25%	0.67%	0.11%	2.87%	3.06%	2.69%
8	2.46%	0.72%	0.11%	3.08%	3.29%	2.87%
9	2.59%	0.92%	0.11%	3.40%	3.67%	3.13%

Throughout the report, we will present the data and graphs to represent the conditions for: all analysis categories combined; by analysis category for adults and children; removal rates by analysis category for adults; and removal rates by analysis category for children.

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

CURRENT-GENERATION IMPLANT DATA

HIRES ULTRA 3D V2

The HiRes™ Ultra 3D (V2) cochlear implant is an update to the previous HiRes Ultra 3D (V1) device. It includes reliability improvements resulting from the Corrective and Preventive Action undertaken by Advanced Bionics related to returned devices showing a common failure mode of fluid ingress into the external electrode pocket.

Based off the standard HiRes Ultra platform but featuring an innovative multimagnet assembly, the HiRes Ultra 3D implant allows the use of clinical MRI at 1.5T and 3T without the need for magnet removal or head-bandaging. Due to the low torque, the recipient can be expected to have a hassle free and pain free experience.



The HiRes Ultra 3D (V2) device has now competed a 2-year reliability data, and the Cumulative Survival Rate (CSR) is 99.96%.

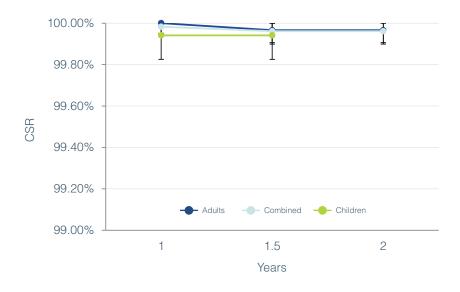
Number of registered HiRes Ultra 3D (V2) implants

As of March 31, 2022.

Date of first commercial introductiona: 2019.

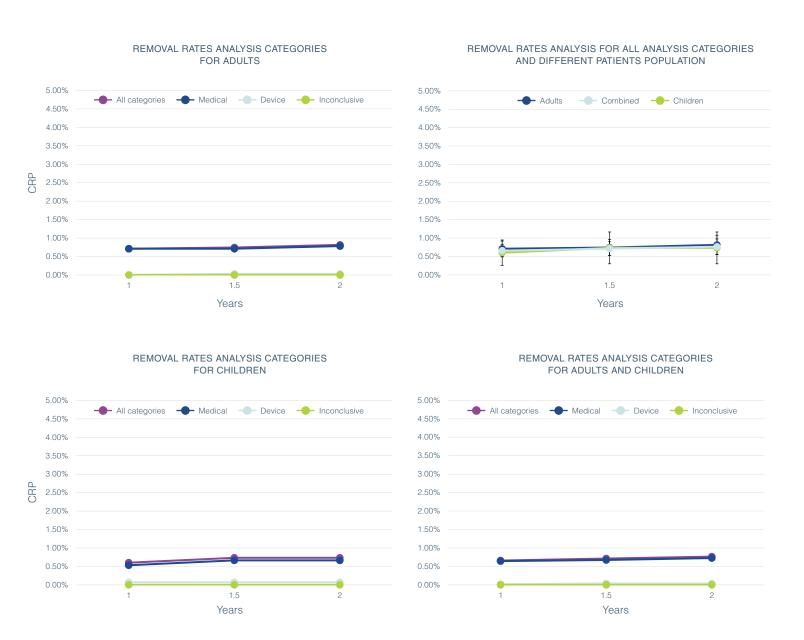
STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	7724	3016	11324 ^b
ANSI/AAMI CI86	8827°	2497	11324

ISO 5841-2:2014



Years in use		1.5	
ADULTS	100.00%	99.97%	99.97%
COMBINED	99.98%	99.96%	99.96%
CHILDREN	99.94%	99.94%	N/A ^d

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.
- d. Sample size for children at 2 years is not large enough for reporting.



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP Inconclusive CRP		Total All Categories	Total	
Teal	Medical Chr	Device OnF	inconclusive one	Total All Categories	CI Up	CI Down
1	0.64%	0.02%	0.00%	0.66%	0.83%	0.49%
1.5	0.67%	0.04%	0.00%	0.71%	0.90%	0.53%
2	0.73%	0.04%	0.00%	0.76%	0.98%	0.55%

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

HIRES ULTRA V2

The HiRes[™] Ultra (V2) cochlear implant has the same reliability improvements as the HiRes Ultra 3D (V2) device.

Featuring the proven performance platform as the HiRes 90K[™] Advantage, the HiRes Ultra (V2) offers a robust, thin, and discreet mechanical design that is suitable for adults and children.



The HiRes Ultra (V2) device has a limited number of devices that have completed the 1-year data point and the data presented may not reach statistical significance. There has not been a confirmed device-related failure to date.

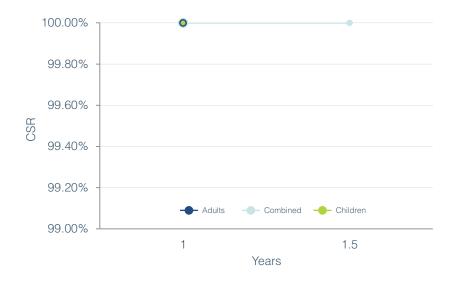
Number of registered HiRes Ultra (V2) implants

As of March 31, 2022.

Date of first commercial introductiona: 2019.

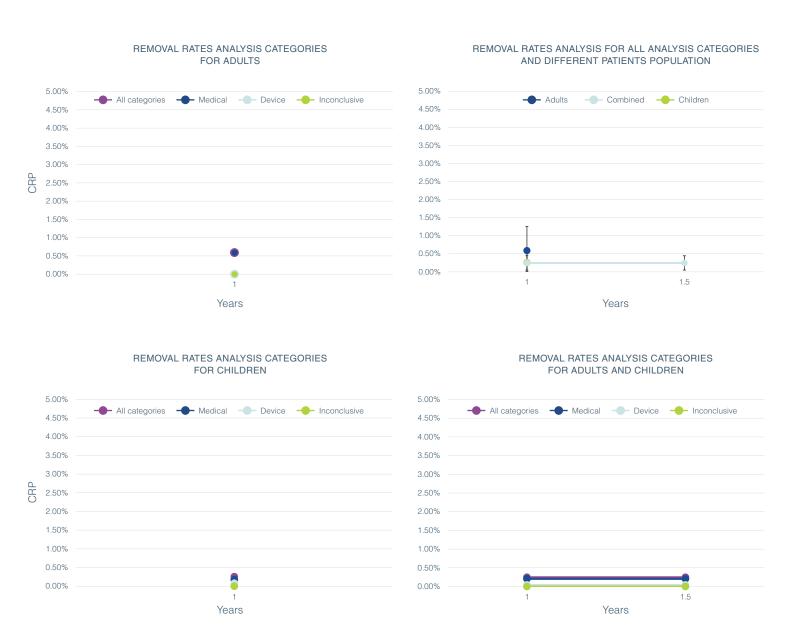
STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	427	1592	2787 ^b
ANSI/AAMI CI86	1305°	1482	2787

ISO 5841-2:2014



Years in use		1.5
ADULTS	100.00%	N/A ^d
COMBINED	100.00%	100%
CHILDREN	100.00%	N/A ^d

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.
- d. Sample size for children at 1.5 years is not large enough for reporting.



COMBINED ADULTS AND CHILDREN

Voor	Year Medical CRP	Davisa CDD Incomo	Inconclusive CRP	Total All Categories	To	Total	
real	Medical Chr	Device CRP Inconclusive CRP Total		Total All Categories	CI Up	CI Down	
1	0.21%	0.04%	0.00%	0.25%	0.45%	0.05%	
1.5	0.21%	0.04%	0.00%	0.25%	0.45%	0.05%	

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

PREVIOUS-GENERATION IMPLANT DATA

HIRES ULTRA 3D V1

The HiRes™ Ultra 3D (V1) cochlear implant was subject to a Voluntary Field Action initiated by Advanced Bionics in February 2020, and was withdrawn from sale worldwide. The Voluntary Field Action was due to recognition of a common failure mode for a small number of devices, resulting in loss of clinical benefit. Advanced Bionics will continue to provide regular reliability updates on the HiRes Ultra platform as new data and information becomes available.

Number of registered HiRes Ultra 3D (V1) implants

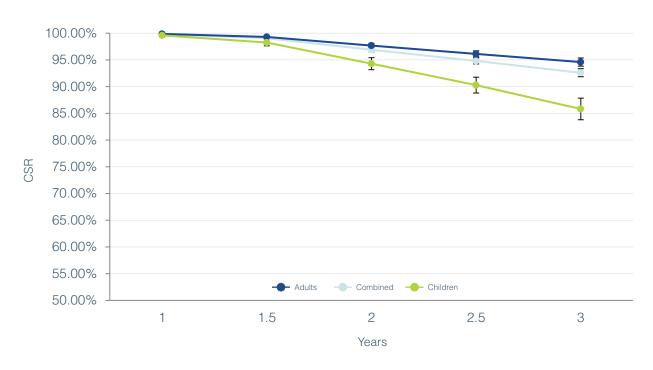
As of March 31, 2022.

Last year of distribution^a: subject to voluntary field action February, 2020.

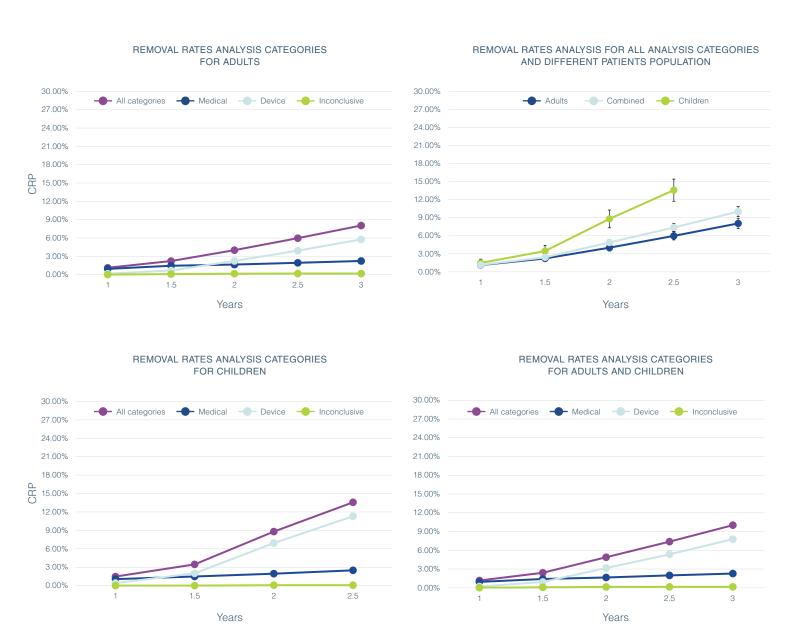
STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	4781	1681	6688 ^b
ANSI/AAMI CI86	5270°	1418	6688

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014



Years in use	1	1.5	2	2.5	3
ADULTS	99.85%	99.30%	97.68%	96.13%	94.58%
COMBINED	99.79%	99.06%	96.90%	94.81%	92.59%
CHILDREN	99.58%	98.25%	94.28%	90.29%	85.83%



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To	otal
Teal	Medical Onf	Device Onr	Inconclusive One	Total All Categories	CI Up	CI Down
1	0.94%	0.21%	0.02%	1.17%	1.42%	0.91%
1.5	1.41%	0.94%	0.08%	2.41%	2.78%	2.04%
2	1.66%	3.16%	0.14%	4.89%	5.41%	4.37%
2.5	1.98%	5.35%	0.16%	7.38%	8.02%	6.73%
3	2.27%	7.77%	0.16%	10.01%	10.85%	9.18%

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

HIRES ULTRA V1

The HiRes™ Ultra (V1) cochlear implant was subject to a Voluntary Field Action initiated by Advanced Bionics in February 2020, and was withdrawn from sale worldwide. This was due to recognition of a common failure mode for a small number of devices, resulting in loss of clinical benefit. Advanced Bionics will continue to provide regular reliability updates on the HiRes Ultra platform as new data and information becomes available.

Number of registered HiRes Ultra (V1) implants

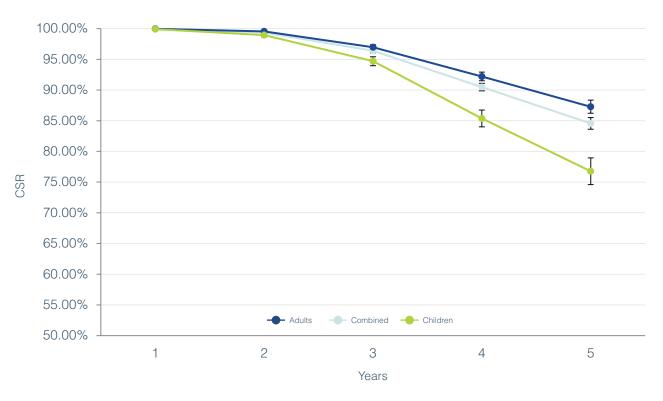
As of March 31, 2022.

Last year of distributiona: subject to voluntary field action February, 2020.

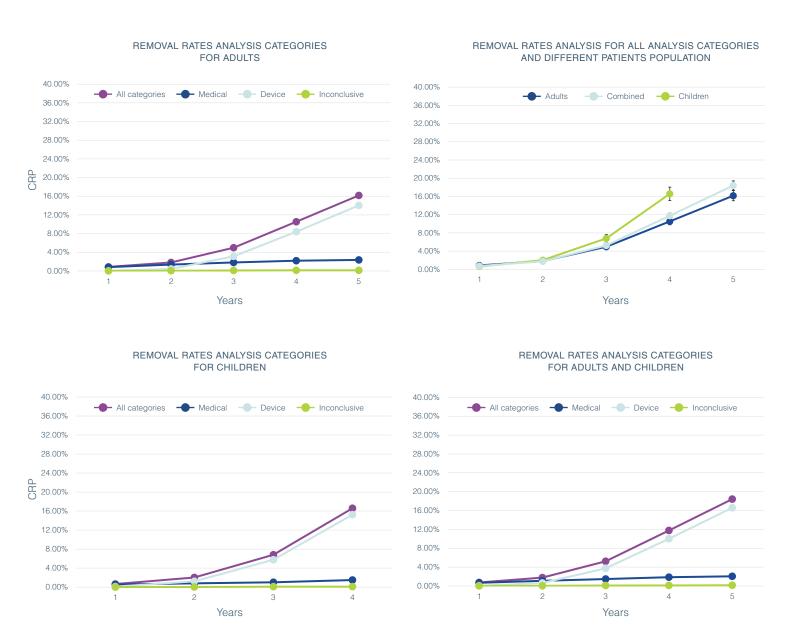
STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	7280	4447	12539 ^b
ANSI/AAMI CI86	8637°	3902	12539

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014



Years in use	1	2	3	4	5
ADULTS	99.97%	99.55%	96.95%	92.20%	87.28%
COMBINED	99.95%	99.37%	96.39%	90.47%	84.55%
CHILDREN	99.91%	98.96%	94.68%	85.38%	76.77%



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	Total				
Teal	Medical Onf	Device Onr	Inconclusive OnF	Total All Categories	CI Up	CI Down			
1	0.68%	0.05%	0.02%	0.74%	0.89%	0.59%			
2	1.10%	0.65%	0.03%	1.77%	2.00%	1.54%			
3	1.47%	3.75%	0.09%	5.24%	5.65%	4.84%			
4	1.86%	10.00%	0.11%	11.77%	12.43%	11.11%			
5	2.04%	16.59%	0.15%	18.41%	19.41%	17.41%			

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

HIRES 90K ADVANTAGE

The HiRes 90K™ Advantage cochlear implant offers mechanical improvements over its predecessor, the HiRes 90K cochlear implant. It has the capability to offer advanced sound coding strategies, together with the security of a deep bone bed.

Number of registered HiRes 90K Advantage implants

As of March 31, 2022.

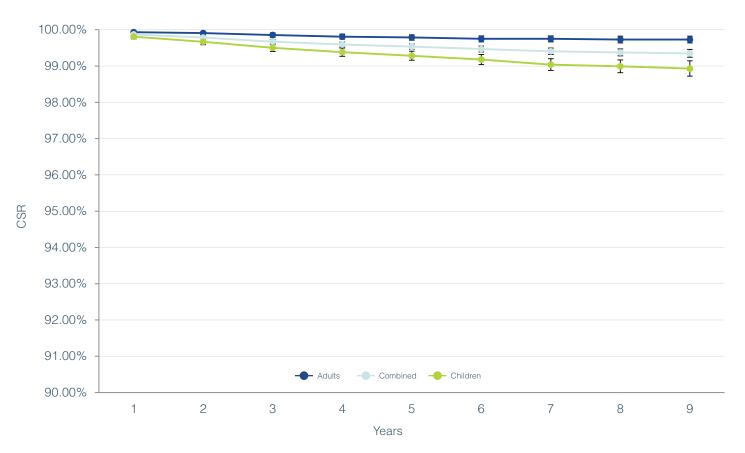
Date of first commercial introduction^a: 2012. Still available in selected markets.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	15344	20426	38102 ^b
ANSI/AAMI CI86	19659°	18443	38102

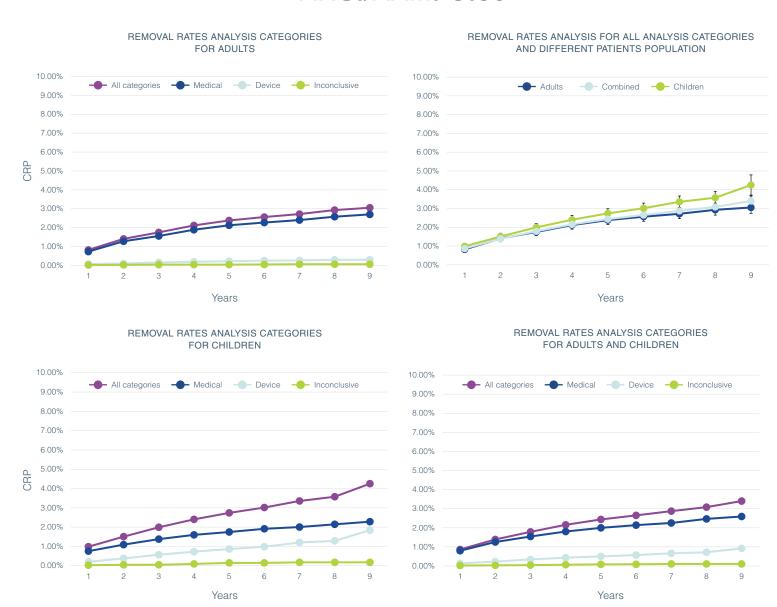


- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014



Years in use	1	2	3	4	5	6	7	8	9
ADULTS	99.93%	99.91%	99.85%	99.81%	99.79%	99.75%	99.75%	99.73%	99.73%
COMBINED	99.87%	99.78%	99.67%	99.59%	99.54%	99.47%	99.41%	99.37%	99.35%
CHILDREN	99.81%	99.67%	99.50%	99.38%	99.28%	99.18%	99.04%	98.99%	98.93%



COMBINED ADULT AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To	otal
rear	Medical Chr	Device Chr	inconclusive one	Total All Categories	CI Up	CI Down
1	0.80%	0.13%	0.02%	0.87%	0.96%	0.77%
2	1.25%	0.23%	0.03%	1.39%	1.51%	1.27%
3	1.54%	0.34%	0.04%	1.79%	1.92%	1.65%
4	1.80%	0.43%	0.06%	2.16%	2.31%	2.01%
5	2.00%	0.50%	0.08%	2.44%	2.60%	2.27%
6	2.14%	0.57%	0.09%	2.65%	2.82%	2.48%
7	2.25%	0.67%	0.11%	2.87%	3.06%	2.69%
8	2.46%	0.72%	0.11%	3.08%	3.29%	2.87%
9	2.59%	0.92%	0.11%	3.40%	3.67%	3.13%

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

HIRES 90K vendor A post-mod

The HiRes 90K[™] cochlear implant offers access to advanced sound coding technologies. It has undergone manufacturing modifications, with the version currently available being designated as the HiRes 90K (vendor A post-mod) implant.

Number of registered HiRes 90K implants (vendor A post-mod)

As of March 31, 2022.

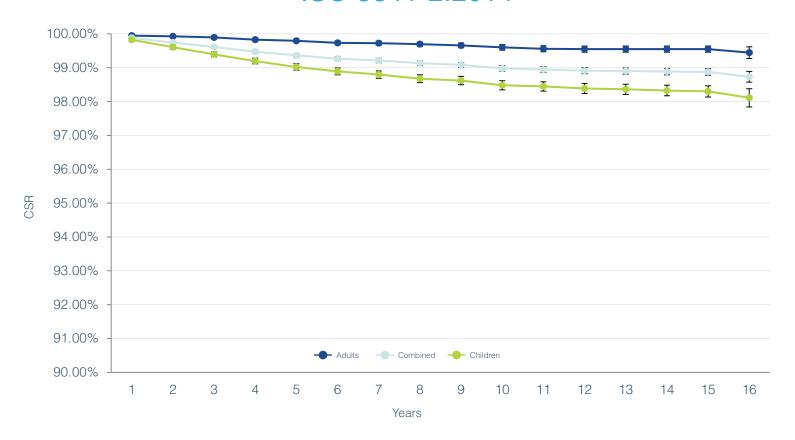
Last year of distribution^a: 2018.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	31346	45338	79503 ^b
ANSI/AAMI CI86	39725°	39778	79503



- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

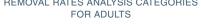
ISO 5841-2:2014



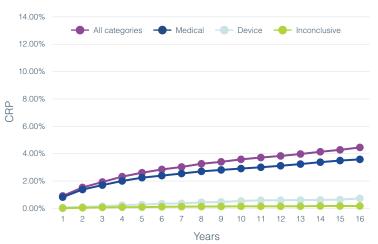
Years in use					5	6			9	10	11	12	13	14	15	16
ADULTS	99.95%	99.93%	99.89%	99.83%	99.80%	99.74%	99.73%	99.70%	99.66%	99.60%	99.56%	99.55%	99.55%	99.55%	99.55%	99.45%
COMBINED	99.88%	99.75%	99.61%	99.47%	99.36%	99.27%	99.21%	99.13%	99.08%	98.98%	98.95%	98.91%	98.90%	98.89%	98.87%	98.73%
CHILDREN	99.82%	99.61%	99.39%	99.20%	99.02%	98.89%	98.80%	98.68%	98.62%	98.48%	98.45%	98.39%	98.36%	98.33%	98.30%	98.11%

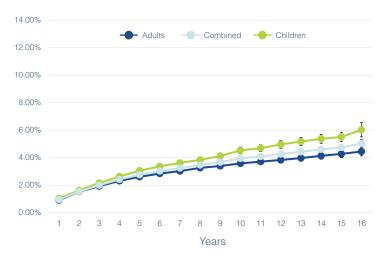






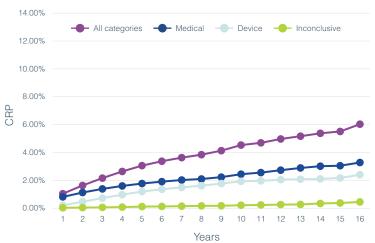




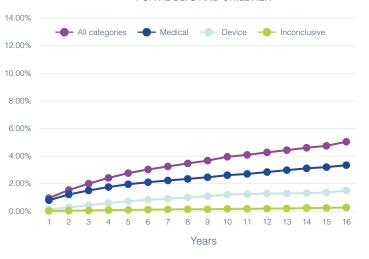


REMOVAL RATES ANALYSIS CATEGORIES

FOR CHILDREN



REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS AND CHILDREN



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Catagorias	To	otal
rear	Medical CRP	Device CRP	inconclusive CRP	Total All Categories	CI Up	CI Down
1	0.80%	0.13%	0.02%	0.96%	1.02%	0.89%
2	1.22%	0.29%	0.04%	1.54%	1.63%	1.46%
3	1.51%	0.44%	0.06%	2.00%	2.10%	1.90%
4	1.76%	0.60%	0.08%	2.42%	2.53%	2.31%
5	1.96%	0.73%	0.10%	2.77%	2.88%	2.65%
6	2.10%	0.84%	0.12%	3.03%	3.16%	2.91%
7	2.23%	0.91%	0.13%	3.25%	3.38%	3.12%
8	2.35%	1.01%	0.14%	3.47%	3.60%	3.33%
9	2.47%	1.10%	0.15%	3.67%	3.82%	3.53%
10	2.61%	1.21%	0.17%	3.95%	4.10%	3.80%
11	2.71%	1.24%	0.18%	4.09%	4.25%	3.93%
12	2.84%	1.28%	0.19%	4.27%	4.44%	4.10%
13	2.98%	1.30%	0.20%	4.43%	4.61%	4.25%
14	3.11%	1.32%	0.23%	4.61%	4.80%	4.41%
15	3.20%	1.35%	0.25%	4.74%	4.95%	4.53%
16	3.34%	1.50%	0.28%	5.04%	5.31%	4.77%

Not all data may be shown alongside the graphs due to space limitations. Please see the Appendix at the end of the report for a complete data set.

HIRES 90K vendor A all

Number of registered HiRes 90K implants (vendor A all)

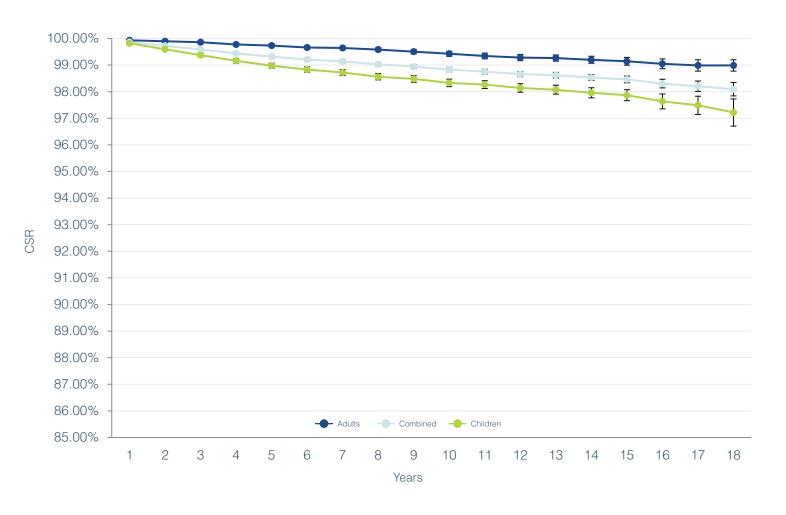
As of March 31, 2022.

Last year of distribution^a: 2018.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	32789	46439	82058 ^b
ANSI/AAMI CI86	41386°	40672	82058

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

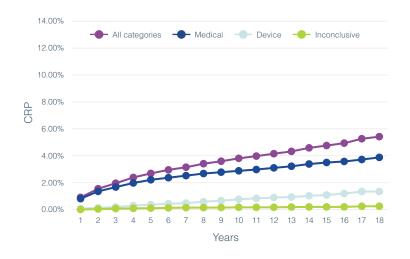
ISO 5841-2:2014

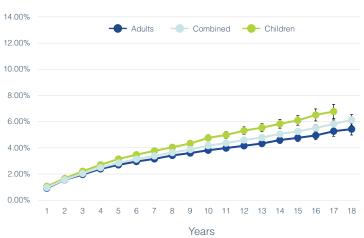


Years in use																		18
ADULTS	99.93%	99.90%	99.86%	99.77%	99.74%	99.66%	99.64%	99.59%	99.51%	99.43%	99.34%	99.28%	99.26%	99.20%	99.14%	99.05%	98.99%	98.99%
COMBINED	99.87%	99.73%	99.59%	99.44%	99.32%	99.21%	99.14%	99.03%	98.94%	98.83%	98.75%	98.66%	98.62%	98.53%	98.46%	98.30%	98.21%	98.09%
CHILDREN	99.82%	99.59%	99.37%	99.16%	98.98%	98.83%	98.72%	98.56%	98.48%	98.33%	98.27%	98.14%	98.08%	97.96%	97.87%	97.63%	97.49%	97.22%



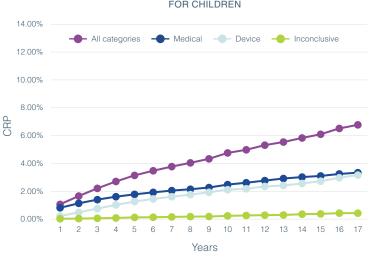
REMOVAL RATES ANALYSIS CATEGORIES REMOVAL RATES ANALYSIS FOR ALL ANALYSIS CATEGORIES FOR ADULTS AND DIFFERENT PATIENTS POPULATION

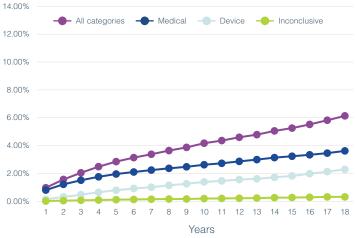




REMOVAL RATES ANALYSIS CATEGORIES FOR CHILDREN

REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS AND CHILDREN





COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To	otal
Teal	Medical Chr	Device Chr	Inconclusive Chr	Total All Categories	CI Up	CI Down
1	0.80%	0.15%	0.02%	0.97%	1.04%	0.90%
2	1.22%	0.31%	0.05%	1.57%	1.66%	1.49%
3	1.51%	0.47%	0.07%	2.05%	2.14%	1.95%
4	1.76%	0.65%	0.09%	2.49%	2.60%	2.38%
5	1.96%	0.80%	0.12%	2.85%	2.97%	2.73%
6	2.10%	0.92%	0.13%	3.14%	3.26%	3.01%
7	2.24%	1.01%	0.15%	3.38%	3.51%	3.25%
8	2.37%	1.14%	0.16%	3.64%	3.78%	3.50%
9	2.48%	1.26%	0.17%	3.87%	4.01%	3.73%
10	2.62%	1.39%	0.20%	4.17%	4.33%	4.02%
11	2.73%	1.47%	0.21%	4.36%	4.52%	4.19%
12	2.87%	1.56%	0.22%	4.60%	4.77%	4.42%
13	2.99%	1.62%	0.23%	4.78%	4.97%	4.60%
14	3.14%	1.72%	0.26%	5.06%	5.26%	4.85%
15	3.24%	1.82%	0.27%	5.26%	5.47%	5.04%
16	3.34%	1.98%	0.29%	5.52%	5.77%	5.27%
17	3.46%	2.13%	0.32%	5.82%	6.13%	5.51%
18	3.62%	2.30%	0.32%	6.14%	6.54%	5.73%

Not all data may be shown alongside the graphs due to space limitations. Please see the Appendix at the end of the report for a complete data set.

HIRES 90K vendor A pre-mod

Number of registered HiRes 90K implants (vendor A pre-mod)

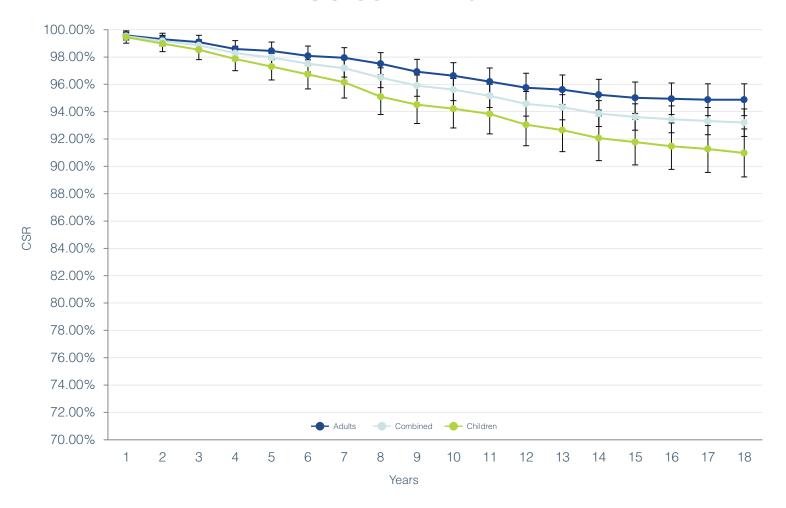
As of March 31, 2022.

Last year of distribution^a: 2005.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	1443	1101	2555b
ANSI/AAMI CI86	1661°	894	2555

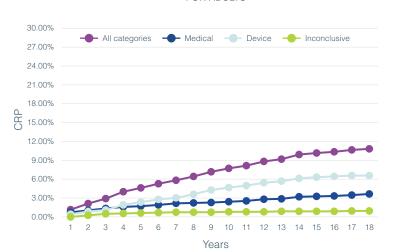
- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014

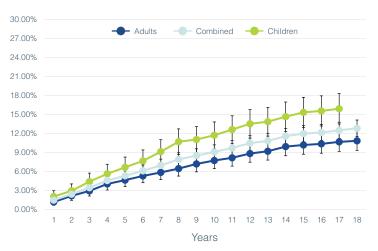


Years in use					5	6			9	10	- 11	12	13	14	15	16	17	18
ADULTS	99.58%	99.30%	99.09%	98.59%	98.45%	98.09%	97.94%	97.51%	96.93%	96.64%	96.20%	95.76%	95.61%	95.24%	95.02%	94.95%	94.87%	94.87%
COMBINED	99.53%	99.17%	98.85%	98.29%	97.96%	97.51%	97.18%	96.49%	95.91%	95.62%	95.16%	94.58%	94.32%	93.86%	93.61%	93.44%	93.31%	93.20%
CHILDREN	99.45%	98.99%	98.52%	97.86%	97.30%	96.73%	96.15%	95.09%	94.51%	94.22%	93.83%	93.05%	92.66%	92.07%	91.77%	91.47%	91.27%	90.98%

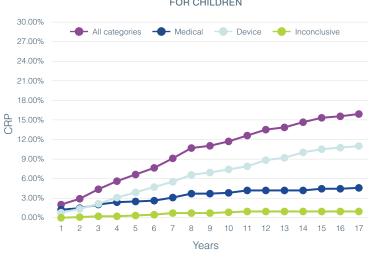
REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS



REMOVAL RATES ANALYSIS FOR ALL ANALYSIS CATEGORIES AND DIFFERENT PATIENTS POPULATION



REMOVAL RATES ANALYSIS CATEGORIES FOR CHILDREN



REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS AND CHILDREN



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To	tal
Teal	Medical Chr	Device Chr	Inconclusive Chr	Total All Categories	CI Up	CI Down
1	0.90%	0.55%	0.00%	1.45%	1.91%	0.99%
2	1.18%	1.03%	0.20%	2.39%	2.98%	1.80%
3	1.58%	1.47%	0.40%	3.41%	4.12%	2.71%
4	1.86%	2.31%	0.44%	4.55%	5.36%	3.74%
5	1.98%	2.87%	0.52%	5.30%	6.17%	4.43%
6	2.15%	3.44%	0.61%	6.08%	7.01%	5.16%
7	2.47%	3.88%	0.73%	6.95%	7.94%	5.96%
8	2.72%	4.62%	0.73%	7.89%	8.94%	6.85%
9	2.76%	5.19%	0.73%	8.48%	9.57%	7.40%
10	2.89%	5.60%	0.82%	9.08%	10.19%	7.96%
11	3.10%	6.01%	0.86%	9.71%	10.86%	8.56%
12	3.27%	6.63%	0.86%	10.46%	11.65%	9.27%
13	3.32%	6.92%	0.91%	10.82%	12.02%	9.61%
14	3.53%	7.49%	0.91%	11.57%	12.81%	10.32%
15	3.66%	7.78%	0.91%	11.96%	13.23%	10.70%
16	3.70%	7.95%	0.91%	12.16%	13.43%	10.89%
17	3.84%	8.12%	0.95%	12.48%	13.77%	11.20%
18	4.02%	8.29%	0.95%	12.82%	14.12%	11.51%

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

HIRES 90K vendor B

Number of registered HiRes 90K implants (vendor B)

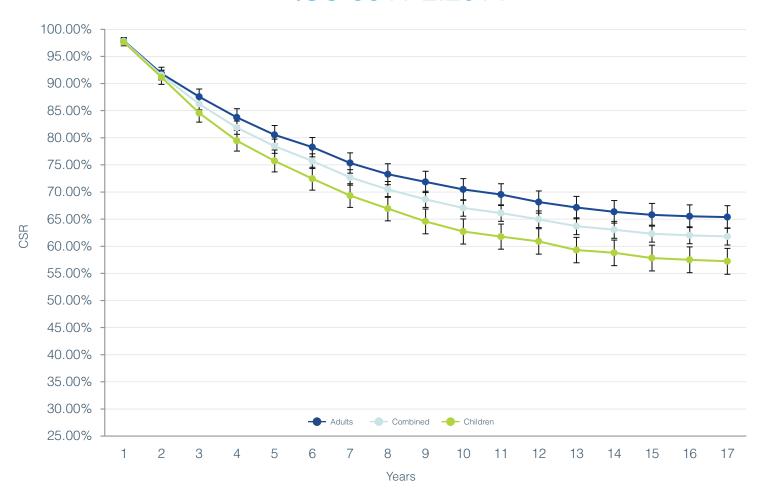
As of March 31, 2022.

Last year of distribution^a. Subject to voluntary recall in 2006.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	2195	1847	4065b
ANSI/AAMI CI86	2560°	1505	4065

- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014

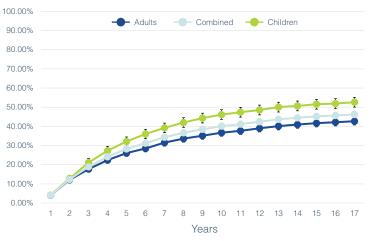


Years in use					5	6			9	10	- 11	12	13	14	15	16	17
ADULTS	97.88%	91.84%	87.57%	83.77%	80.55%	78.26%	75.34%	73.28%	71.88%	70.47%	69.52%	68.15%	67.14%	66.34%	65.80%	65.53%	65.38%
COMBINED	97.79%	91.55%	86.24%	81.86%	78.44%	75.69%	72.69%	70.49%	68.66%	67.05%	66.11%	64.97%	63.70%	63.04%	62.31%	62.02%	61.81%
CHILDREN	97.65%	91.16%	84.56%	79.45%	75.74%	72.46%	69.33%	66.93%	64.58%	62.71%	61.77%	60.89%	59.30%	58.79%	57.83%	57.51%	57.23%



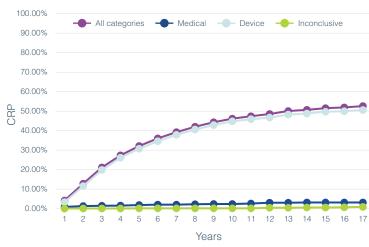
REMOVAL RATES ANALYSIS CATEGORIES REMOVAL RATES ANALYSIS FOR ALL ANALYSIS CATEGORIES AND DIFFERENT PATIENTS POPULATION FOR ADULTS





REMOVAL RATES ANALYSIS CATEGORIES





REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS AND CHILDREN



COMBINED ADULTS AND CHILDREN

Voor	Medical CRP	Device CRP	Inconclusive CRP	Total All Catagorica	Total			
Year	Medical CRP	Device CRP	inconclusive CRP	Total All Categories	CI Up	CI Down		
1	0.98%	3.14%	0.00%	4.09%	4.70%	3.48%		
2	1.32%	11.11%	0.08%	12.36%	13.37%	11.35%		
3	1.58%	17.53%	0.14%	18.95%	20.16%	17.75%		
4	1.77%	22.69%	0.14%	24.16%	25.48%	22.84%		
5	1.94%	26.67%	0.21%	28.24%	29.63%	26.85%		
6	2.08%	29.65%	0.21%	31.25%	32.68%	29.82%		
7	2.15%	32.76%	0.21%	34.34%	35.81%	32.87%		
8	2.42%	34.95%	0.21%	36.66%	38.15%	35.17%		
9	2.46%	36.79%	0.21%	38.47%	39.98%	36.97%		
10	2.58%	38.43%	0.21%	40.14%	41.66%	38.62%		
11	2.66%	39.44%	0.21%	41.18%	42.70%	39.65%		
12	2.83%	40.60%	0.29%	42.45%	43.98%	40.92%		
13	2.87%	41.86%	0.29%	43.70%	45.23%	42.16%		
14	3.01%	42.54%	0.34%	44.46%	46.00%	42.92%		
15	3.05%	43.31%	0.34%	45.23%	46.77%	43.68%		
16	3.10%	43.71%	0.39%	45.66%	47.21%	44.12%		
17	3.16%	44.20%	0.52%	46.24%	47.80%	44.69%		

Not all data may be shown alongside the graphs due to space limitations. Please see the Appendix at the end of the report for a complete data set.

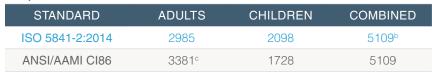
CII BIONIC EAR

The CII Bionic Ear cochlear implant is the base for the advanced technology found in Advanced Bionics implants today. The platform can still take advantage of the latest innovations today. It benefited from the mechanical improvement made to the earlier C1.2 implants.

Number of registered CII implants

As of March 31, 2022.

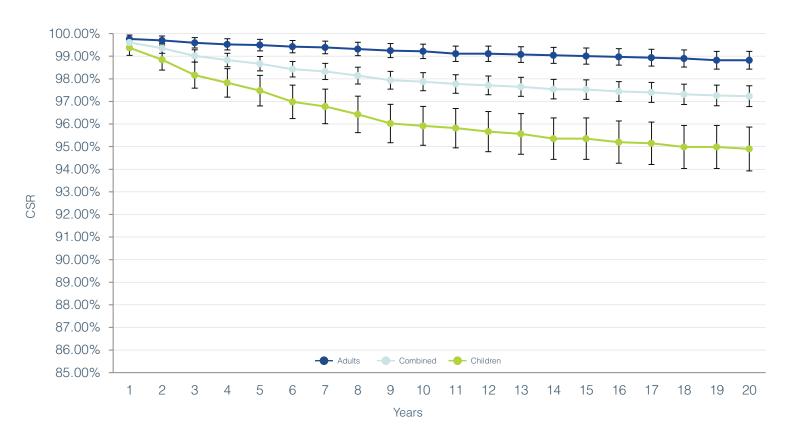
Last year of distribution^a: 2004.





b. The combined number also includes any registered users for whom we do not have date of birth information.

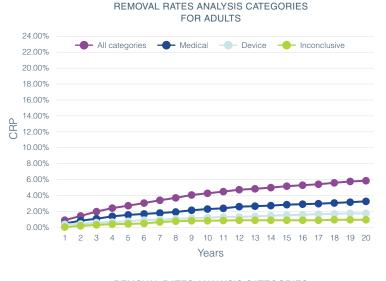
ISO 5841-2:2014

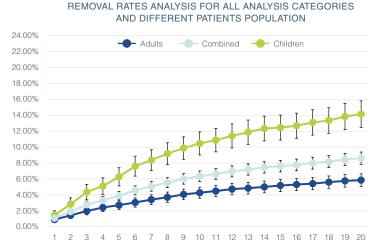


Years in use					5	6				10	11	12	13	14	15	16	17	18	19	20
ADULTS	99.76%	99.70%	99.60%	99.53%	99.49%	99.42%	99.39%	99.32%	99.25%	99.22%	99.11%	99.11%	99.08%	99.04%	99.01%	98.97%	98.94%	98.90%	98.82%	98.82%
COMBINED	99.61%	99.35%	99.01%	98.83%	98.67%	98.43%	98.33%	98.14%	97.94%	97.88%	97.77%	97.71%	97.65%	97.54%	97.52%	97.44%	97.40%	97.31%	97.27%	97.23%
CHILDREN	99.38%	98.85%	98.17%	97.82%	97.48%	96.98%	96.78%	96.43%	96.02%	95.92%	95.82%	95.67%	95.56%	95.36%	95.36%	95.20%	95.15%	94.99%	94.99%	94.90%

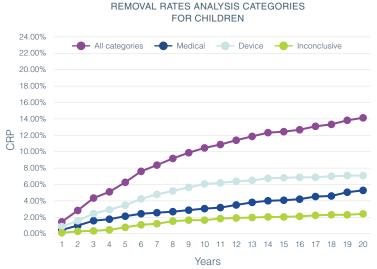


c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.





Years



18

19

20

3.55%

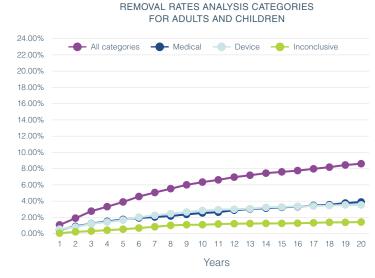
3.76%

3.89%

3.46%

3.53%

3.53%



Total

8.93%

9.21%

9.38%

7.43%

7.68%

7.83%

Year Medical CRP Device CRP Inconclusive CRP Total All Categories CI Up CI Down 0.47% 0.55% 0.06% 1.08% 1.36% 0.79% 1 2 0.89% 0.81% 0.22% 1.90% 2.27% 1.53% 3 1 24% 1 22% 0.32% 2 76% 3 21% 2.31% 4 1.50% 1.42% 0.42% 3.31% 3.80% 2.82% 5 1.74% 1.66% 0.54% 3.90% 4.43% 3.37% 0.68% 4.57% 5.14% 4.00% 6 1.93% 2.03% 2.05% 2.25% 0.85% 5.06% 5.66% 4.46% 8 2.17% 2.45% 1.01% 5.53% 6.16% 4.91% 6.66% 9 2.37% 2.66% 1.09% 6.01% 5.35% 10 2.54% 2.84% 1.09% 6.34% 7.01% 5.67% 11 2.64% 2.94% 1.18% 6.62% 7.30% 5.93% 12 1.22% 2.89% 3.00% 6.95% 7.65% 6.25% 13 3.03% 3.09% 1.24% 7.19% 7.90% 6.48% 14 3.23% 7.45% 8.17% 6.72% 3.13% 1.26% 15 3.24% 3.29% 1.26% 7.60% 8.33% 6.88% 16 8.50% 7.03% 3.32% 3.35% 1.28% 7.76% 7.23% 17 3.46% 3.40% 1.33% 7.98% 8.72%

COMBINED ADULTS AND CHILDREN

Not all data may be shown alongside the graphs due to space limitations. Please see the **Appendix** at the end of the report for a complete data set.

8.18%

8.45%

8.60%

1.39%

1.39%

1.42%

CLARION 1.2

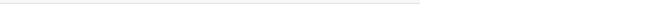
The Clarion 1.2 (C1.2) implant offers mechanical improvements over its predecessor the C1.0 implant, which first introduced independent current-sources, a key technology differentiator for Advanced Bionics implants.

Number of registered C1.2 implants

As of March 31, 2022.

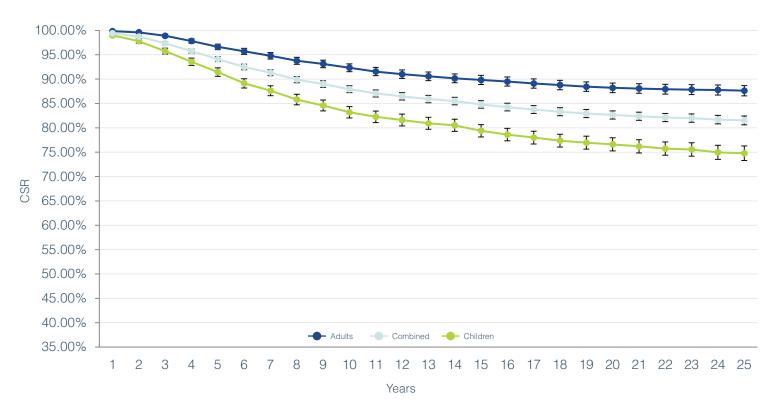
Last year of distribution^a: 2004.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	4287	4146	8491 ^b
ANSI/AAMI CI86	4956°	3535	8491



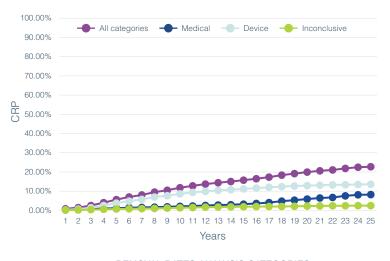
- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.
- c. The adult number also includes users whose personal information is not available or may not be obtainable due to certain privacy laws in certain countries.

ISO 5841-2:2014

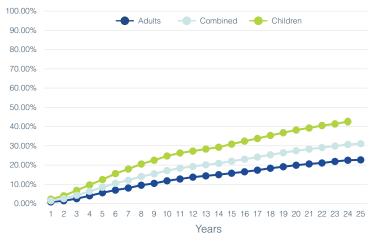


Years in use	1	2	3	4	5	6	7	8	9	10	11	12	13
ADULTS	99.84%	99.60%	98.89%	97.81%	96.61%	95.70%	94.80%	93.76%	93.12%	92.34%	91.55%	91.00%	90.58%
COMBINED	99.42%	98.71%	97.36%	95.75%	94.09%	92.50%	91.32%	89.90%	88.99%	87.91%	87.06%	86.46%	85.92%
CHILDREN	98.98%	97.78%	95.74%	93.56%	91.44%	89.13%	87.63%	85.81%	84.59%	83.20%	82.27%	81.60%	80.92%
Years in use	14	15	16	17	18	1	0 '	20	21	22	23	24	25
rears in use	14	10	10	17	10	'	9 '	20	۷۱	22	20	24	20
ADULTS	90.15%	89.83%	89.50%	89.099	% 88.79	9% 88.4	15% 88.	21% 8	8.07%	37.94%	87.84%	87.76%	87.62%
COMBINED	85.51%	84.80%	84.26%	83.769	% 83.30)% 82.9	93% 82.	65% 8	2.39%	32.12%	81.99%	81.68%	81.52%
CHILDREN	80.52%	79.39%	78.61%	78.009	% 77.37	'% 76.9	96% 76.	61% 7	6.20%	75.74%	75.56%	74.97%	74.79%





REMOVAL RATES ANALYSIS FOR ALL ANALYSIS CATEGORIES AND DIFFERENT PATIENTS POPULATION

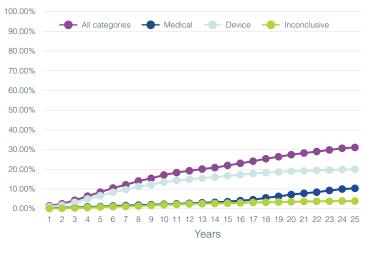


REMOVAL RATES ANALYSIS CATEGORIES FOR CHILDREN



Years

REMOVAL RATES ANALYSIS CATEGORIES FOR ADULTS AND CHILDREN



COMBINED ADULTS AND CHILDREN

Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To	otal
Teal	Medical Chr	Device Chr	Inconclusive one	Total All Categories	CI Up	CI Down
1	0.36%	0.97%	0.13%	1.45%	1.71%	1.20%
2	0.50%	1.80%	0.24%	2.53%	2.86%	2.19%
3	0.68%	3.26%	0.41%	4.32%	4.75%	3.88%
4	0.89%	4.98%	0.58%	6.38%	6.90%	5.86%
5	1.08%	6.67%	0.84%	8.46%	9.05%	7.86%
6	1.38%	8.35%	1.01%	10.52%	11.18%	9.87%
7	1.58%	9.66%	1.17%	12.13%	12.83%	11.43%
8	1.81%	11.26%	1.38%	14.07%	14.81%	13.33%
9	2.04%	12.23%	1.65%	15.44%	16.21%	14.67%
10	2.28%	13.48%	1.98%	17.13%	17.93%	16.32%
11	2.49%	14.38%	2.20%	18.35%	19.17%	17.52%
12	2.75%	14.96%	2.43%	19.31%	20.15%	18.46%
13	3.00%	15.51%	2.56%	20.14%	21.00%	19.29%
14	3.25%	16.00%	2.66%	20.89%	21.76%	20.02%
15	3.62%	16.73%	2.79%	21.98%	22.87%	21.10%
16	4.11%	17.31%	2.96%	23.05%	23.95%	22.15%
17	4.61%	17.85%	3.17%	24.12%	25.04%	23.21%
18	5.52%	18.31%	3.28%	25.36%	26.29%	24.43%
19	6.30%	18.69%	3.41%	26.41%	27.35%	25.46%
20	7.18%	18.96%	3.54%	27.44%	28.40%	26.48%
21	7.84%	19.21%	3.65%	28.26%	29.23%	27.29%
22	8.41%	19.49%	3.78%	29.05%	30.03%	28.07%
23	9.27%	19.62%	3.81%	29.85%	30.86%	28.84%
24	9.98%	19.88%	3.91%	30.70%	31.75%	29.64%
25	10.33%	20.03%	3.91%	31.10%	32.20%	30.01%

Not all data may be shown alongside the graphs due to space limitations. Please see the Appendix at the end of the report for a complete data set.

CLARION 1.0

The Clarion 1.0 (C1.0) implant was Advanced Bionics first device, the start of a technology-forward lineage that continues today. As the number of children implanted with the C1.0 is below the level required for statistical analysis, the data is included in the combined data.

Number of registered C1.0 implants

As of March 31, 2022.

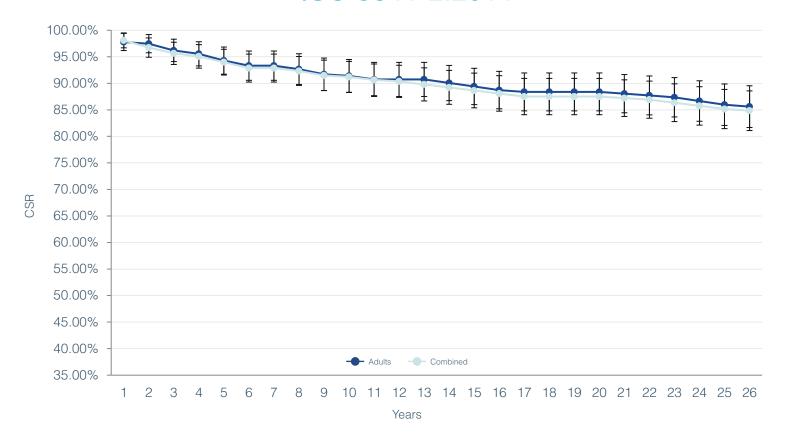
Last year of distribution^a: 1997.

STANDARD	ADULTS	CHILDREN	COMBINED
ISO 5841-2:2014	316	49	367 ^b
ANSI/AAMI CI86	_	_	_



- a. Dates provided are those for major markets covered by FDA and TUV regulation. Some implants may be pending approval in a subset of additional regions.
- b. The combined number also includes any registered users for whom we do not have date of birth information.

ISO 5841-2:2014



Years in use					5	6			9	10	- 11	12	13
ADULTS	97.78%	97.47%	96.19%	95.56%	94.28%	93.32%	93.32%	92.67%	91.70%	91.38%	90.73%	90.73%	90.73%
COMBINED	98.09%	96.73%	95.63%	95.08%	93.98%	92.88%	92.88%	92.33%	91.49%	91.22%	90.65%	90.37%	89.80%
Years in use	14	15	16	17	18	19	20	21	22	23	24	25	26
ADULTS	90.06%	89.39%	88.72%	88.39%	88.39%	88.39%	88.39%	88.05%	87.70%	87.36%	86.66%	85.96%	85.61%
COMBINED	89 23%	88 65%	88.08%	87.51%	87.51%	87.51%	87.51%	87.21%	86.92%	86.33%	85.74%	85.15%	84.84%

The ANSI/AAMI CI86 Standard does not require reporting for devices older than 20 years after the last implantation of that device type. Please refer to the ISO data for information.

SOUND PROCESSOR STIMULATORS

For each currently-available sound processor, there will be a simple measure of reliability based on the average global yearly return rate and graphical data in compliance with ANSI/AAMI CI86 Standard that shows the monthly failure rate.

Where possible this monthly data is further categorized into failure mechanisms, if known, to include mechanical, electronic, moisture damage, and other. Processors that meet all specifications are included and they are classified as no fault found. Where available, the number of registered users is shown, categorized into adult, children, and combined.

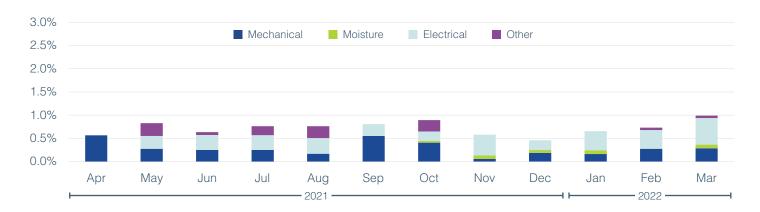


NAÍDA CI M AND SKY CI M

The Naída™ CI M sound processor for adults and Sky CI™ M sound processor for children are the newest Advanced Bionics products integrated with the latest advancements from Phonak, the Marvel platform. With built-in connectivity solutions and the ability to automatically sense and adapt to every situation, the Naída CI M and Sky CI M processors are designed to give you the best hearing experience.

Reliability of the Naída CI M and Sky CI M sound processors are combined at this time due to the limited number of devices in use. As field data becomes available globally, we will present the reliability metrics as separate products in future reports.

RELIABILITY: 99.33%ª



FAILED COMPONENT RETURN RATE^b

MOISTURE 0.00%	Cause	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
ELECTRICAL 0.00% 0.28% 0.32% 0.32% 0.34% 0.26% 0.20% 0.44% 0.21% 0.41% 0.40% 0	MECHANICAL	0.57%	0.28%	0.25%	0.25%	0.17%	0.55%	0.41%	0.06%	0.19%	0.16%	0.28%	0.29%
	MOISTURE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.08%	0.06%	0.08%	0.00%	0.08%
OTHER 0.00% 0.28% 0.06% 0.10% 0.25% 0.00% 0.24% 0.00% 0.00% 0.00% 0.05% 0.	ELECTRICAL	0.00%	0.28%	0.32%	0.32%	0.34%	0.26%	0.20%	0.44%	0.21%	0.41%	0.40%	0.57%
OTHER 0.00% 0.20% 0.00% 0.13% 0.23% 0.00% 0.24% 0.00% 0.00% 0.00% 0.00%	OTHER	0.00%	0.28%	0.06%	0.19%	0.25%	0.00%	0.24%	0.00%	0.00%	0.00%	0.05%	0.05%

- a. Reliability is 1 minus the return rate. The return rate is the average global monthly return rate April 2021 to March 2022.
- b. The number per month represent the unit that complete failure analysis in that month.



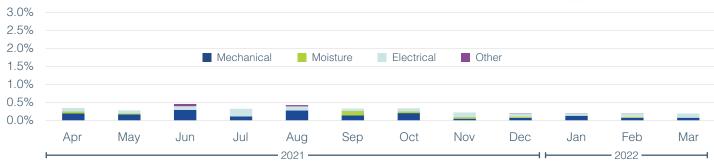


NAÍDA CI Q SERIES

The Naída™ CI Q sound processors feature state-of-the-art technologies exclusively available from Advanced Bionics and Phonak for the best possible hearing experience.



RELIABILITY: 99.71%^a



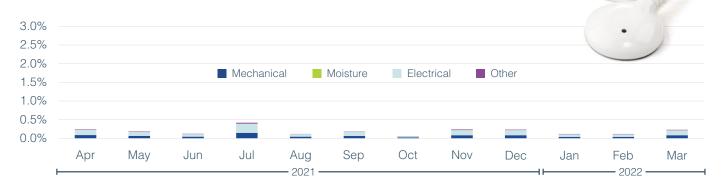
FAILED COMPONENT RETURN RATED

Cause	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
MECHANICAL	0.19%	0.17%	0.29%	0.11%	0.27%	0.14%	0.20%	0.05%	0.07%	0.12%	0.07%	0.07%
MOISTURE	0.05%	0.02%	0.00%	0.00%	0.00%	0.12%	0.05%	0.05%	0.04%	0.00%	0.03%	0.00%
ELECTRICAL	0.10%	0.08%	0.10%	0.21%	0.12%	0.07%	0.09%	0.13%	0.09%	0.07%	0.10%	0.12%
OTHER	0.00%	0.00%	0.06%	0.00%	0.03%	0.00%	0.00%	0.00%	0.01%	0.00%	0.01%	0.00%

CHORUS

The Chorus[™] sound processor is compatible with C1.0 and C1.2 cochlear implants, and offers integrated Roger[™] technology for connectivity and performance.

RELIABILITY: 99.69%^a



FAILED COMPONENT RETURN RATE

Cause	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
MECHANICAL	0.09%	0.06%	0.04%	0.15%	0.04%	0.06%	0.02%	0.08%	0.08%	0.04%	0.04%	0.08%
MOISTURE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ELECTRICAL	0.14%	0.11%	0.07%	0.24%	0.07%	0.10%	0.03%	0.14%	0.14%	0.07%	0.07%	0.13%
OTHER	0.02%	0.01%	0.01%	0.03%	0.01%	0.01%	0.00%	0.02%	0.02%	0.01%	0.01%	0.01%

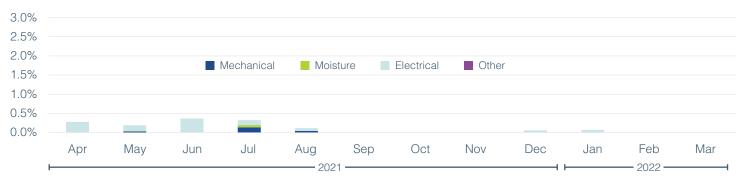
- a. Reliability is 1 minus the return rate. The return rate is the average global monthly return rate over a 12-month period from April 2021 to March 2022.
- b. The number per month represent the unit that complete failure analysis in that month.

NEPTUNE

The Neptune $^{\text{\tiny M}}$ sound processor is the first and only swimmable sound processor.







FAILED COMPONENT RETURN RATE^b

Cause	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
MECHANICAL	0.00%	0.02%	0.00%	0.13%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOISTURE	0.00%	0.01%	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ELECTRICAL	0.28%	0.15%	0.36%	0.13%	0.07%	0.00%	0.00%	0.00%	0.05%	0.07%	0.00%	0.00%
OTHER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

a. Reliability is 1 minus the return rate. The return rate is the average global monthly return rate over a 12-month period from April 2021 to March 2022.

b. The number per month represent the unit that complete failure analysis in that month.

APPENDIX - ANSI/AAMI CI86

HIRES ULTRA 3D v2

	Voor	Medical CRP	Devises CDD	Inconclusive CRP	Total All Catagorias	To	otal
	Year	Medical CRP	Device CRP	inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.71%	0.00%	0.00%	0.71%	0.92%	0.50%
ADULTS	1.5	0.71%	0.03%	0.00%	0.74%	0.96%	0.53%
	2	0.78%	0.03%	0.00%	0.82%	1.08%	0.56%
	1	0.53%	0.07%	0.00%	0.60%	0.95%	0.26%
CHILDREN	1.5	0.66%	0.07%	0.00%	0.73%	1.17%	0.30%
	2	0.66%	0.07%	0.00%	0.73%	1.17%	0.30%

HIRES ULTRA V2

	Year	Medical CRP	Device CRP	Inconclusive CDD	Total All Catagorica	To	otal
	rear	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
ADULTS	1	0.59%	0.00%	0.00%	0.59%	1.25%	0.00%
ADULI 5	1.5ª	N/A	N/A	N/A	N/A	N/A	N/A
CHILDREN	1	0.18%	0.08%	0.00%	0.26%	0.55%	0.00%
CHILDREN	1.5 ^b	N/A	N/A	N/A	N/A	N/A	N/A

a. Sample size for adult at 1.5 years is not large enough for reporting

HIRES ULTRA 3D V1

	Year Medical CRP	Device CRP	Inconclusive CRP	Total All Catagories	Total		
	ieai	Medical Chr	Device Chr	Inconclusive Chr	Total All Categories	CI Up	CI Down
	1	0.95%	0.16%	0.02%	1.13%	1.42%	0.84%
	1.5	1.45%	0.68%	0.10%	2.22%	2.63%	1.82%
ADULTS	2	1.65%	2.24%	0.16%	4.02%	4.56%	3.47%
	2.5	1.94%	3.94%	0.19%	5.98%	6.65%	5.31%
	3	2.24%	5.76%	0.19%	8.04%	8.91%	7.18%
	1	1.06%	0.43%	0.00%	1.48%	2.11%	0.85%
	1.5	1.49%	2.00%	0.00%	3.46%	4.42%	2.51%
CHILDREN	2	1.94%	6.93%	0.07%	8.80%	10.28%	7.32%
	2.5	2.49%	11.30%	0.07%	13.57%	15.42%	11.73%
	3°	N/A	N/A	N/A	N/A	N/A	N/A

c. Sample size children at 3 years is not large enough for reporting

HIRES ULTRA V1

	V	Madical CDD	Davies CDD	In a small raine CDD	Total All Categories	Total		
	Year	Medical CRP	Device CRP	Inconclusive CRP	rotal All Categories	CI Up	CI Down	
	1	0.82%	0.03%	0.03%	0.87%	1.08%	0.66%	
	2	1.36%	0.43%	0.04%	1.82%	2.11%	1.52%	
ADULTS	3	1.82%	3.12%	0.09%	4.97%	5.46%	4.48%	
	4	2.19%	8.40%	0.13%	10.53%	11.29%	9.78%	
	5	2.35%	14.03%	0.13%	16.17%	17.28%	15.06%	
	1	0.54%	0.10%	0.00%	0.64%	0.89%	0.39%	
	2	0.80%	1.21%	0.03%	2.03%	2.47%	1.58%	
CHILDREN	3	1.02%	5.76%	0.09%	6.80%	7.64%	5.96%	
	4	1.49%	15.24%	0.09%	16.59%	18.06%	15.12%	
	5	N/A	N/A	N/A	N/A	N/A	N/A	

b. Sample size for children at 1.5 years is not large enough for reporting

HIRES 90K ADVANTAGE

	Voor Modical CBB					To	otal
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.73%	0.07%	0.02%	0.82%	0.95%	0.69%
	2	1.28%	0.10%	0.03%	1.40%	1.58%	1.23%
	3	1.56%	0.15%	0.04%	1.75%	1.94%	1.55%
	4	1.89%	0.19%	0.04%	2.12%	2.33%	1.90%
ADULTS	5	2.12%	0.22%	0.04%	2.38%	2.61%	2.15%
	6	2.27%	0.25%	0.05%	2.56%	2.80%	2.32%
	7	2.40%	0.26%	0.06%	2.72%	2.97%	2.46%
	8	2.58%	0.30%	0.06%	2.93%	3.21%	2.65%
	9	2.70%	0.30%	0.06%	3.05%	3.36%	2.74%
	1	0.76%	0.20%	0.03%	0.98%	1.13%	0.84%
	2	1.09%	0.38%	0.04%	1.51%	1.68%	1.33%
	3	1.38%	0.57%	0.05%	1.99%	2.20%	1.78%
	4	1.60%	0.73%	0.09%	2.40%	2.63%	2.17%
CHILDREN	5	1.75%	0.86%	0.14%	2.74%	2.99%	2.48%
	6	1.91%	0.98%	0.14%	3.02%	3.29%	2.74%
	7	2.01%	1.20%	0.18%	3.36%	3.66%	3.05%
	8	2.14%	1.29%	0.18%	3.57%	3.91%	3.23%
	9	2.28%	1.84%	0.18%	4.25%	4.79%	3.71%

HIRES 90K vendor A post-mod

	\/a =	Madia d ODD	Davis ODD	la consideri de ODD	Talal All Calanada	To	otal
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.83%	0.07%	0.02%	0.91%	1.01%	0.81%
	2	1.38%	0.11%	0.04%	1.53%	1.66%	1.41%
	3	1.70%	0.16%	0.07%	1.93%	2.07%	1.79%
	4	2.00%	0.24%	0.08%	2.32%	2.47%	2.16%
	5	2.24%	0.28%	0.09%	2.61%	2.77%	2.44%
	6	2.40%	0.35%	0.12%	2.85%	3.02%	2.67%
	7	2.55%	0.37%	0.13%	3.03%	3.21%	2.85%
ADULTS	8	2.71%	0.44%	0.13%	3.26%	3.45%	3.07%
ADULIS	9	2.81%	0.47%	0.14%	3.40%	3.60%	3.21%
	10	2.91%	0.55%	0.15%	3.59%	3.79%	3.38%
	11	3.00%	0.59%	0.15%	3.72%	3.93%	3.50%
	12	3.11%	0.60%	0.15%	3.83%	4.05%	3.61%
	13	3.23%	0.61%	0.16%	3.97%	4.21%	3.74%
	14	3.38%	0.62%	0.17%	4.14%	4.39%	3.89%
	15	3.50%	0.64%	0.17%	4.28%	4.55%	4.01%
	16	3.59%	0.73%	0.17%	4.45%	4.77%	4.13%
	1	0.81%	0.20%	0.03%	1.04%	1.14%	0.94%
	2	1.13%	0.47%	0.04%	1.63%	1.76%	1.51%
	3	1.39%	0.73%	0.06%	2.16%	2.31%	2.02%
	4	1.60%	0.97%	0.08%	2.64%	2.80%	2.48%
	5	1.77%	1.20%	0.12%	3.06%	3.23%	2.88%
	6	1.91%	1.36%	0.13%	3.37%	3.56%	3.18%
	7	2.02%	1.50%	0.15%	3.63%	3.82%	3.43%
CHILDREN	8	2.10%	1.62%	0.17%	3.84%	4.05%	3.64%
CHILDREN	9	2.23%	1.77%	0.17%	4.13%	4.35%	3.91%
	10	2.44%	1.93%	0.21%	4.53%	4.78%	4.29%
	11	2.56%	1.96%	0.23%	4.70%	4.95%	4.44%
	12	2.73%	2.05%	0.26%	4.97%	5.25%	4.69%
	13	2.89%	2.08%	0.27%	5.17%	5.47%	4.87%
	14	3.02%	2.10%	0.34%	5.37%	5.70%	5.05%
	15	3.05%	2.17%	0.37%	5.51%	5.86%	5.16%
	16	3.28%	2.40%	0.45%	6.03%	6.55%	5.51%

HIRES 90K vendor A all

	V	Madian ODD	Davis ODD	landa de la CDD	Tabal All Catanasias	To	otal
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.82%	0.08%	0.02%	0.92%	1.02%	0.82%
	2	1.36%	0.14%	0.05%	1.56%	1.68%	1.43%
	3	1.68%	0.20%	0.09%	1.97%	2.11%	1.83%
	4	1.99%	0.31%	0.10%	2.39%	2.55%	2.24%
	5	2.22%	0.37%	0.12%	2.70%	2.86%	2.53%
	6	2.38%	0.46%	0.14%	2.96%	3.13%	2.79%
	7	2.53%	0.49%	0.15%	3.16%	3.34%	2.98%
	8	2.68%	0.60%	0.16%	3.42%	3.61%	3.23%
ADULTS	9	2.79%	0.68%	0.16%	3.60%	3.80%	3.40%
ADULI 5	10	2.89%	0.78%	0.18%	3.82%	4.03%	3.61%
	11	2.98%	0.85%	0.18%	3.98%	4.20%	3.76%
	12	3.11%	0.90%	0.18%	4.16%	4.39%	3.93%
	13	3.23%	0.95%	0.20%	4.33%	4.57%	4.09%
	14	3.40%	1.03%	0.21%	4.59%	4.85%	4.33%
	15	3.50%	1.10%	0.21%	4.76%	5.04%	4.49%
	16	3.58%	1.21%	0.21%	4.94%	5.25%	4.64%
	17	3.73%	1.35%	0.26%	5.27%	5.66%	4.88%
	18	3.89%	1.35%	0.26%	5.43%	5.87%	4.98%
	1	0.82%	0.22%	0.03%	1.06%	1.16%	0.96%
	2	1.13%	0.49%	0.04%	1.66%	1.78%	1.53%
	3	1.40%	0.76%	0.06%	2.21%	2.36%	2.07%
	4	1.61%	1.03%	0.09%	2.70%	2.87%	2.54%
	5	1.78%	1.26%	0.12%	3.14%	3.32%	2.97%
	6	1.93%	1.45%	0.14%	3.48%	3.66%	3.29%
	7	2.05%	1.61%	0.16%	3.78%	3.97%	3.58%
	8	2.15%	1.77%	0.18%	4.04%	4.25%	3.84%
CHILDREN	9	2.27%	1.93%	0.19%	4.33%	4.56%	4.11%
CHILDREN	10	2.48%	2.12%	0.23%	4.76%	5.01%	4.51%
	11	2.61%	2.18%	0.26%	4.98%	5.24%	4.72%
	12	2.77%	2.35%	0.28%	5.32%	5.60%	5.03%
	13	2.92%	2.42%	0.30%	5.54%	5.84%	5.23%
	14	3.02%	2.56%	0.35%	5.83%	6.17%	5.50%
	15	3.10%	2.73%	0.38%	6.09%	6.46%	5.72%
	16	3.25%	2.98%	0.43%	6.51%	6.97%	6.05%
	17	3.34%	3.16%	0.43%	6.77%	7.32%	6.23%
	18	N/A	N/A	N/A	N/A	N/A	N/A

HIRES 90K vendor A pre-mod

	V	Madiaal CDD	Daviss CDD	Incomplyains CDD	Total All Catagorica	Total	
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.73%	0.43%	0.00%	1.15%	1.67%	0.64%
	2	1.03%	0.85%	0.25%	2.12%	2.82%	1.43%
	3	1.34%	1.10%	0.49%	2.91%	3.72%	2.10%
	4	1.59%	1.91%	0.56%	4.00%	4.95%	3.06%
	5	1.71%	2.34%	0.62%	4.61%	5.62%	3.60%
	6	1.90%	2.78%	0.68%	5.28%	6.36%	4.20%
	7	2.16%	3.03%	0.75%	5.83%	6.96%	4.70%
	8	2.22%	3.59%	0.75%	6.44%	7.62%	5.25%
ADULTS	9	2.28%	4.28%	0.75%	7.17%	8.41%	5.92%
ADULI S	10	2.41%	4.66%	0.81%	7.72%	9.01%	6.43%
	11	2.54%	4.98%	0.81%	8.14%	9.47%	6.82%
	12	2.80%	5.42%	0.81%	8.82%	10.19%	7.45%
	13	2.87%	5.68%	0.88%	9.19%	10.58%	7.79%
	14	3.20%	6.12%	0.88%	9.92%	11.37%	8.47%
	15	3.26%	6.31%	0.88%	10.17%	11.63%	8.70%
	16	3.33%	6.44%	0.88%	10.35%	11.82%	8.88%
	17	3.46%	6.57%	0.95%	10.66%	12.15%	9.17%
	18	3.64%	6.57%	0.95%	10.83%	12.34%	9.32%

	Year	Medical CRP D	Device CRP	Inconclusive CRP	Total All Categories	Total	
	Teal		Device Chr			CI Up	CI Down
	1	1.24%	0.79%	0.00%	2.02%	2.94%	1.09%
	2	1.46%	1.36%	0.12%	2.92%	4.02%	1.81%
	3	2.04%	2.16%	0.23%	4.38%	5.72%	3.04%
	4	2.39%	3.09%	0.23%	5.62%	7.13%	4.11%
	5	2.50%	3.90%	0.35%	6.64%	8.27%	5.00%
	6	2.62%	4.71%	0.47%	7.65%	9.40%	5.90%
	7	3.10%	5.53%	0.72%	9.12%	11.01%	7.22%
	8	3.71%	6.59%	0.72%	10.69%	12.73%	8.66%
CHILDREN	9	3.71%	6.94%	0.72%	11.03%	13.09%	8.97%
CHILDREN	10	3.83%	7.42%	0.84%	11.71%	13.83%	9.60%
	11	4.20%	7.89%	0.97%	12.61%	14.80%	10.43%
	12	4.20%	8.84%	0.97%	13.52%	15.77%	11.27%
	13	4.20%	9.20%	0.97%	13.86%	16.13%	11.58%
	14	4.20%	10.04%	0.97%	14.65%	16.98%	12.32%
	15	4.45%	10.52%	0.97%	15.33%	17.70%	12.96%
	16	4.45%	10.76%	0.97%	15.56%	17.95%	13.17%
	17	4.58%	11.00%	0.97%	15.91%	18.31%	13.50%
	18	N/A	N/A	N/A	N/A	N/A	N/A

HIRES 90K vendor B

	V "	Madiaal CDD	Medical CRP Device CRP	la constant a ODD	Tabal All Cata maria a	Total	
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	1.00%	3.05%	0.00%	4.02%	4.79%	3.26%
	2	1.26%	10.90%	0.09%	12.09%	13.36%	10.82%
	3	1.58%	16.26%	0.18%	17.73%	19.22%	16.24%
	4	1.82%	20.81%	0.18%	22.39%	24.02%	20.77%
	5	1.93%	24.45%	0.23%	26.08%	27.80%	24.37%
	6	2.04%	26.84%	0.23%	28.49%	30.26%	26.73%
	7	2.15%	29.89%	0.23%	31.55%	33.37%	29.74%
	8	2.44%	31.79%	0.23%	33.61%	35.46%	31.76%
ADULTS	9	2.44%	33.37%	0.23%	35.15%	37.02%	33.28%
	10	2.63%	34.87%	0.23%	36.73%	38.62%	34.84%
	11	2.63%	35.83%	0.23%	37.66%	39.56%	35.76%
	12	2.69%	37.18%	0.23%	39.01%	40.92%	37.10%
	13	2.76%	38.27%	0.23%	40.11%	42.04%	38.19%
	14	2.89%	39.08%	0.23%	40.97%	42.91%	39.04%
	15	2.96%	39.75%	0.23%	41.67%	43.61%	39.74%
	16	3.03%	40.22%	0.23%	42.17%	44.11%	40.23%
	17	3.12%	40.64%	0.33%	42.69%	44.64%	40.74%
	1	0.88%	3.34%	0.00%	4.19%	5.21%	3.18%
	2	1.31%	11.58%	0.07%	12.80%	14.49%	11.11%
	3	1.47%	19.87%	0.07%	21.11%	23.18%	19.04%
	4	1.56%	26.10%	0.07%	27.31%	29.57%	25.05%
	5	1.84%	30.72%	0.17%	32.11%	34.49%	29.74%
	6	2.04%	34.59%	0.17%	36.04%	38.48%	33.60%
	7	2.04%	37.85%	0.17%	39.23%	41.71%	36.75%
	8	2.27%	40.56%	0.17%	42.01%	44.52%	39.50%
CHILDREN	9	2.39%	42.86%	0.17%	44.32%	46.85%	41.80%
	10	2.39%	44.75%	0.17%	46.16%	48.70%	43.62%
	11	2.63%	45.87%	0.17%	47.39%	49.93%	44.85%
	12	3.02%	46.71%	0.43%	48.55%	51.09%	46.00%
	13	3.02%	48.27%	0.43%	50.05%	52.60%	47.50%
	14	3.15%	48.77%	0.57%	50.66%	53.21%	48.12%
	15	3.15%	49.69%	0.57%	51.55%	54.10%	49.01%
	16	3.15%	49.98%	0.71%	51.90%	54.45%	49.35%
	17	3.15%	50.59%	0.91%	52.59%	55.15%	50.03%

CII BIONIC EAR

	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	To CI Up	otal CI Down
	1	0.48%	0.39%	0.03%	0.89%	1.21%	0.58%
	2	0.84%	0.42%	0.18%	1.43%	1.83%	1.03%
	3	1.08%	0.60%	0.30%	1.97%	2.44%	1.50%
	4	1.38%	0.66%	0.39%	2.42%	2.94%	1.90%
	5	1.56%	0.75%	0.42%	2.72%	3.27%	2.17%
	6	1.68%	0.90%	0.49%	3.04%	3.63%	2.46%
	7	1.80%	0.97%	0.67%	3.40%	4.02%	2.79%
	8	1.93%	1.06%	0.76%	3.70%	4.34%	3.06%
	9	2.14%	1.15%	0.82%	4.06%	4.73%	3.39%
ADULTS	10	2.29%	1.21%	0.82%	4.27%	4.96%	3.59%
ADULI 5	11	2.38%	1.31%	0.85%	4.48%	5.18%	3.78%
	12	2.60%	1.31%	0.89%	4.72%	5.44%	4.00%
	13	2.66%	1.37%	0.89%	4.84%	5.57%	4.11%
	14	2.72%	1.46%	0.89%	4.99%	5.73%	4.25%
	15	2.84%	1.52%	0.89%	5.17%	5.92%	4.42%
	16	2.91%	1.59%	0.89%	5.29%	6.05%	4.53%
	17	2.97%	1.65%	0.89%	5.41%	6.18%	4.65%
	18	3.06%	1.68%	0.95%	5.59%	6.37%	4.82%
	19	3.16%	1.75%	0.95%	5.76%	6.55%	4.97%
	20	3.26%	1.75%	0.95%	5.85%	6.65%	5.05%
	1	0.47%	0.87%	0.12%	1.45%	2.01%	0.88%
	2	0.99%	1.57%	0.29%	2.84%	3.62%	2.06%
	3	1.59%	2.46%	0.35%	4.35%	5.31%	3.39%
	4	1.77%	2.93%	0.48%	5.10%	6.14%	4.07%
	5	2.13%	3.47%	0.78%	6.27%	7.41%	5.12%
	6	2.44%	4.25%	1.09%	7.61%	8.86%	6.35%
	7	2.56%	4.80%	1.22%	8.36%	9.67%	7.06%
	8	2.69%	5.22%	1.53%	9.18%	10.54%	7.81%
	9	2.87%	5.65%	1.66%	9.88%	11.29%	8.47%
CHILDREN	10	3.06%	6.08%	1.66%	10.46%	11.91%	9.02%
OTTLETTEN	11	3.19%	6.20%	1.85%	10.87%	12.34%	9.40%
	12	3.51%	6.38%	1.92%	11.40%	12.90%	9.89%
	13	3.82%	6.51%	1.98%	11.86%	13.39%	10.33%
	14	4.02%	6.75%	2.05%	12.33%	13.88%	10.78%
	15	4.08%	6.82%	2.05%	12.45%	14.01%	10.89%
	16	4.21%	6.88%	2.11%	12.68%	14.25%	11.11%
	17	4.53%	6.88%	2.24%	13.09%	14.69%	11.50%
	18	4.60%	7.01%	2.31%	13.33%	14.94%	11.73%
	19	5.06%	7.09%	2.31%	13.83%	15.47%	12.19%
	20	5.28%	7.09%	2.42%	14.13%	15.80%	12.46%

CLARION 1.2

			D : 000			To	otal
	Year	Medical CRP	Device CRP	Inconclusive CRP	Total All Categories	CI Up	CI Down
	1	0.41%	0.31%	0.14%	0.86%	1.11%	0.60%
	2	0.55%	0.66%	0.27%	1.47%	1.80%	1.13%
	3	0.76%	1.40%	0.41%	2.55%	2.99%	2.11%
	4	0.95%	2.54%	0.60%	4.04%	4.60%	3.49%
	5	1.16%	3.81%	0.75%	5.64%	6.29%	4.99%
	6	1.42%	4.86%	0.84%	6.99%	7.71%	6.28%
	7	1.53%	5.76%	0.93%	8.06%	8.82%	7.30%
	8	1.73%	6.96%	1.06%	9.53%	10.36%	8.71%
	9	1.86%	7.68%	1.19%	10.48%	11.34%	9.62%
	10	2.11%	8.63%	1.40%	11.82%	12.72%	10.91%
	11	2.30%	9.38%	1.49%	12.78%	13.72%	11.85%
	12	2.57%	9.90%	1.70%	13.71%	14.68%	12.75%
ADULTS	13	2.78%	10.39%	1.75%	14.41%	15.40%	13.43%
	14	2.97%	10.78%	1.85%	15.03%	16.03%	14.03%
	15	3.26%	11.22%	1.92%	15.75%	16.78%	14.73%
	16	3.61%	11.61%	1.99%	16.50%	17.54%	15.46%
	17	4.07%	12.03%	2.04%	17.33%	18.39%	16.26%
	18	4.84%	12.38%	2.06%	18.35%	19.43%	17.26%
	19	5.33%	12.70%	2.16%	19.14%	20.25%	18.04%
	20	5.94%	12.91%	2.27%	19.94%	21.06%	18.81%
	21	6.46%	13.10%	2.32%	20.60%	21.74%	19.46%
	22	6.74%	13.27%	2.42%	21.07%	22.23%	19.92%
	23	7.59%	13.36%	2.42%	21.88%	23.07%	20.68%
	24	8.11%	13.50%	2.50%	22.49%	23.74%	21.25%
	25	8.24%	13.62%	2.50%	22.72%	24.00%	21.44%
	1	0.29%	1.90%	0.11%	2.30%	2.79%	1.80%
	2	0.43%	3.42%	0.20%	4.03%	4.68%	3.38%
	3	0.58%	5.89%	0.41%	6.83%	7.66%	5.99%
	4	0.83%	8.43%	0.57%	9.71%	10.69%	8.73%
	5	0.99%	10.70%	0.98%	12.45%	13.55%	11.36%
	6	1.35%	13.28%	1.28%	15.54%	16.74%	14.35%
	7	1.69%	15.20%	1.55%	17.92%	19.19%	16.65%
	8	1.97%	17.37%	1.90%	20.54%	21.88%	19.20%
	9	2.33%	18.72%	2.37%	22.50%	23.88%	21.11%
	10	2.55%	20.39%	2.92%	24.69%	26.12%	23.26%
	11	2.81%	21.53%	3.33%	26.27%	27.73%	24.81%
	12	3.04%	22.20%	3.60%	27.29%	28.76%	25.81%
CHILDREN	13	3.35%	22.86%	3.87%	28.33%	29.82%	26.83%
	14	3.71%	23.48%	3.98%	29.26%	30.77%	27.75%
	15	4.23%	24.65%	4.22%	30.88%	32.42%	29.35%
	16	4.96%	25.51%	4.55%	32.42%	33.98%	30.87%
	17	5.53%	26.25%	5.01%	33.82%	35.40%	32.25%
	18	6.71%	26.88%	5.26%	35.37%	36.96%	33.78%
	19	8.00%	27.35%	5.44%	36.80%	38.40%	35.19%
	20	9.41%	27.71%	5.62%	38.20%	39.82%	36.57%
	21	10.35%	28.07%	5.83%	39.27%	40.91%	37.64%
	22	11.48%	28.55%	6.02%	40.56%	42.22%	38.90%
	23	12.35%	28.76%	6.11%	41.37%	43.07%	39.68%
	24	13.47%	29.22%	6.26%	42.59%	44.37%	40.81%
	25	N/A	N/A	N/A	N/A	N/A	N/A

CONTACT US

This report is intended to provide both professionals and our CI recipients with relevant information on the reliability of our products. If you have any questions, please contact us by emailing hear@AdvancedBionics.com or visit AdvancedBionics.com for more general information.



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