Provox

Provox Voice Prostheses



Anna
Provox VP User

Atos
Coloplast Group

About us_

Who we are

At Atos Medical, we are driven by the desire to improve the quality of life and care of people with a neck stoma. We provide personalized care and innovative solutions using technologies built on decades of experience and a deep understanding of our customers.

1986

Atos Medical was founded in the south of Sweden by the brothers Gertand Jan-Ove Persson.

1990

Through R&D in cooperation with the Netherlands Cancer Institute, we launched the first Provox voice prosthesis.

2003

Designed to prevent early leakage, Provox ActiValve was introduced as our most advanced voice prosthesis.

2009

Provox Vega was developed to provide patients with the confidence to speak more naturally.

Today

Over 30 years of experience in laryngectomy care and a range of voice prostheses to suit different patient needs.



Emilio
Provox VP User



Innovative solutions for laryngectomy care

A voice prosthesis is the most common and preferred method for voice rehabilitation.[1,2] It creates the most natural sounding voice, with high success rates.[3,4] Since the introduction of the first Provox voice prosthesis in 1990, Atos Medical has become the world leader in laryngectomy care.

Our commitment and dedication drive our innovation process and we take pride in continuously bringing innovative solutions to our users.

To ensure quality in the supply chain, the innovation department is right next to the production facility. The proximity makes it easy to test new ideas and solutions, and to test-drive prototypes while exchanging knowledge between manufacturing technicians and innovative engineers.

In production, each individual product passes through a variety of tests and checks before the device is approved for delivery.

Surprisingly, a lot of this careful work needs the help of a keen eye and a steady hand. There are critical moments that robots and automated machines simply cannot manage with the same precision.

Provox Vega

Confidence to speak more naturally

Provox Vega is a voice prosthesis used by thousands of people who have undergone a laryngectomy.

It is preferred by many patients,[1] thinking it is closer to the natural way of speaking in terms of fluency and phrasing.

Provox Vega is designed with airflow characteristics that are optimized for speaking, and an opening pressure that supports a good seal when swallowing.[5,7]

Provox Vega is known for being a robust, durable and reliable device, which is easy to maintain.[1,5]

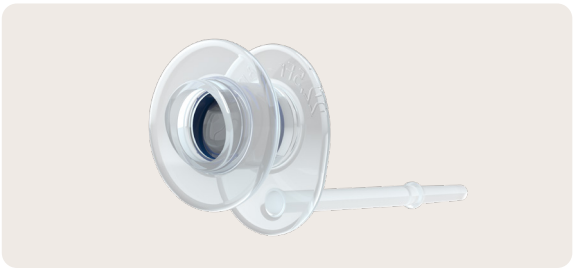


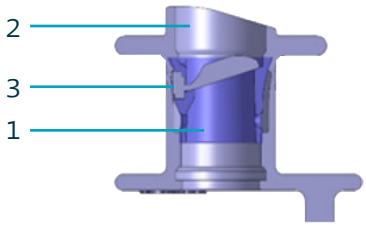
Key benefits[1,2,5-8]:

- Better voice quality
- Less effort to speak
- Easy to clean and maintain effectively
- Robust and durable
- Easy insertion and ability to choose from three different methods of insertion

Key features:

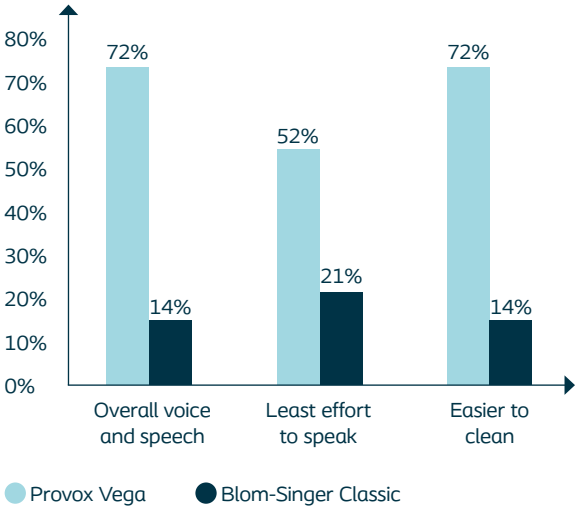
1. Large inner diameter in relation to outer diameter for lower airflow resistance
2. Hood protects the valve flap from debris
3. Robust valve flap system makes brushing through prosthesis possible
4. Available in sizes 17, 20 and 22.5Fr





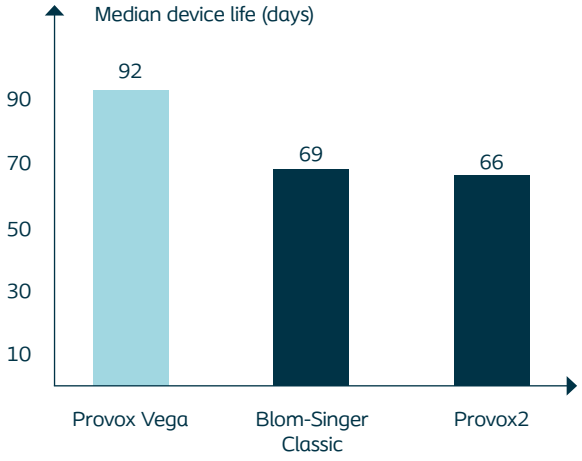
Clinical evidence

Crossover study with 29 patients. Provox Vega patients reported significantly better voice and speech (72% vs 14%; p= 0.001) and less effort to speak (52% vs 21%; p= 0.05) when compared to Blom-Singer Classic.[1]



Hancock et al., 2012[1]

Prospective study with 102 patients.
Provox Vega had significantly longer device life compared to Blom-Singer Classic (median 92 days vs 69 days; p = 0.004).[2]



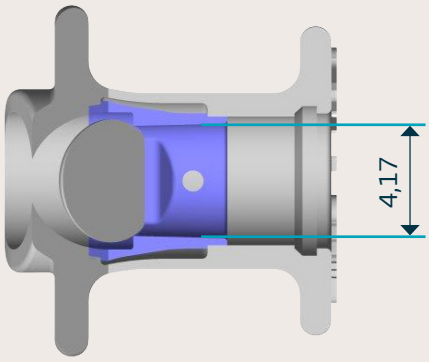
Kress et al., 2014[2]

Large voice prosthesis inner diameter decreases speaking effort

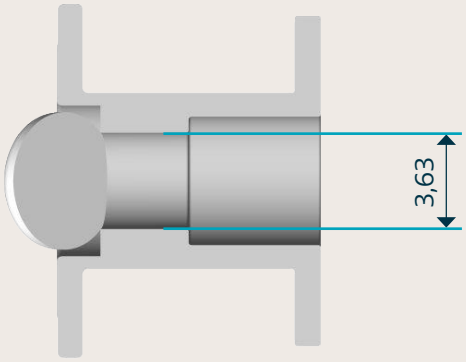
Low speaking effort is important for voicing. A large voice prosthesis inner diameter means increased airflow, with less speaking effort and positive impact on speaking quality.[5-8]

If a patient finds that speaking is difficult, and a voice prosthesis with a smaller diameter is in use, consider changing to a voice prosthesis with a larger diameter.

Provox Vega 20Fr



Blom-Singer Classic 20Fr



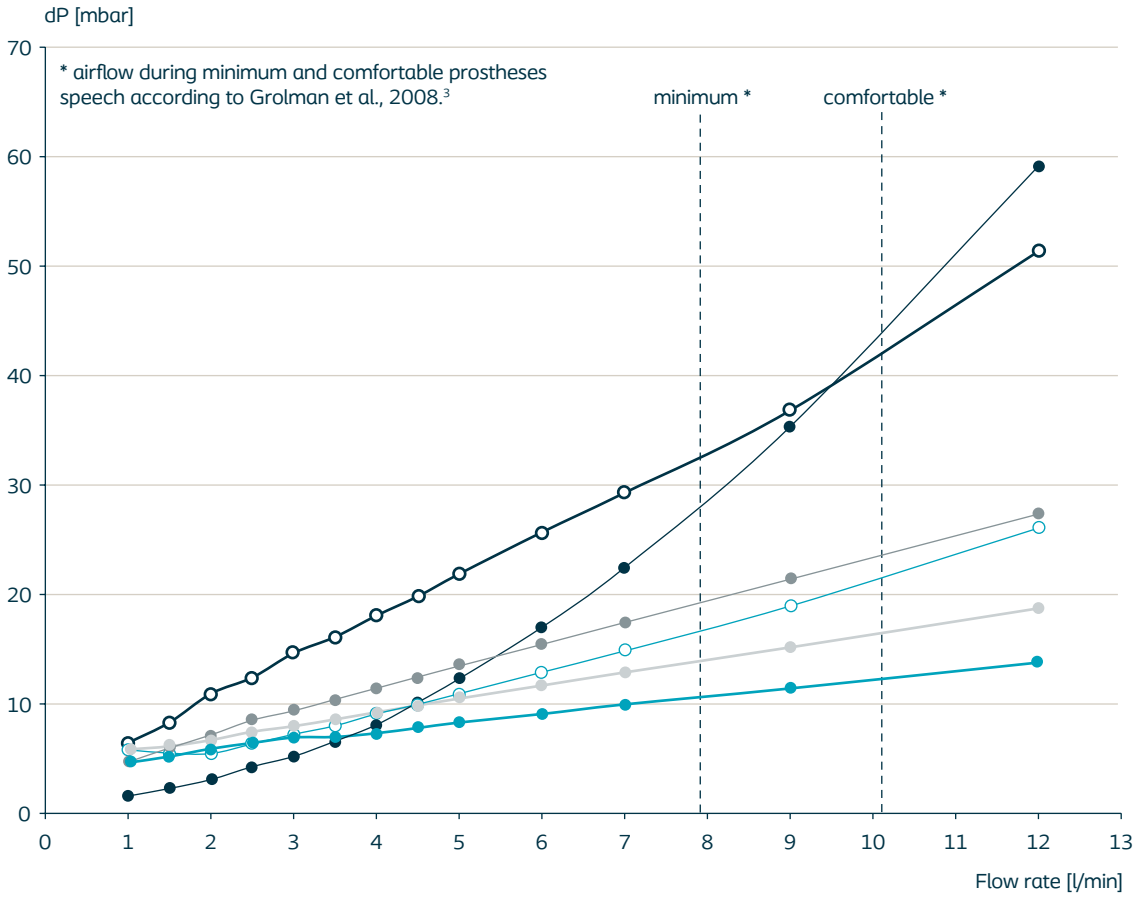
Key benefits:

Larger inner diameter means:

- Increased airflow
- Decreased speaking effort

	Provox Vega 17Fr	Blom-Singer Classic 16Fr	Provox Vega 20Fr	Blom-Singer Classic 20Fr	Provox Vega 22.5Fr
Opening area (mm3)	9.35	7.50	13.66	10.35	17.72
Inner diameter (mm)	3.45	3.09	4.17	3.63	4.75
Outer diameter (mm)	5.7	5.3	6.7	6.7	7.5

Provox Vega 22.5Fr requires the lowest speaking effort due to low voice prosthesis airflow resistance



Source: published on www.stimmprothese.com

Provox Vega Insertion System

More control and greater flexibility

No tracheoesophageal punctures are the same. There are variations in the configuration and direction from patient to patient, just as the size and shape of the stoma will differ. In addition, clinicians have different preferences when it comes to the insertion method for the voice prosthesis.

The Provox Vega Insertion System has been developed with all this in mind. It can be used in different ways to address the anatomical variations in the patient and the clinician's preferred method of insertion.

Key benefits:

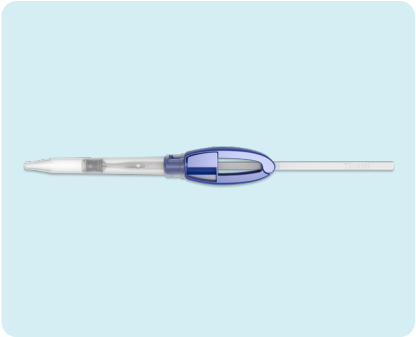
- Adaptable to patient anatomy
- Creates a perfect fold of the esophageal flange of the voice prosthesis
- Intuitive and easy to use
- Adaptable to preferred insertion method



System Insertion

For straightforward, easily accessible punctures

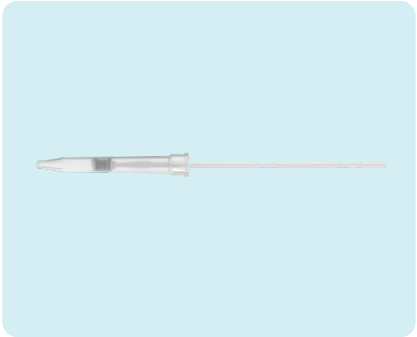
- Quick procedure



Tube Insertion

For more difficult-to-reach or angled punctures

- Slim device
- Good visibility



Capsule Insertion

For a narrow stoma or esophagus and difficult-to-reach punctures

- Very slim device
- Can be used with Provox TwistLock for easy folding of esophageal flange into capsule



Provox Vega XtraSeal

Confidence to eat and drink without leakage

Provox Vega XtraSeal combines the benefits of Provox Vega with a solution to manage leakage around the voice prosthesis due to enlarged puncture.

Essentially, it is a Provox Vega with an additional, enlarged esophageal flange.

The flange is thin, concave and very flexible, so it conforms to the tissue around the puncture.

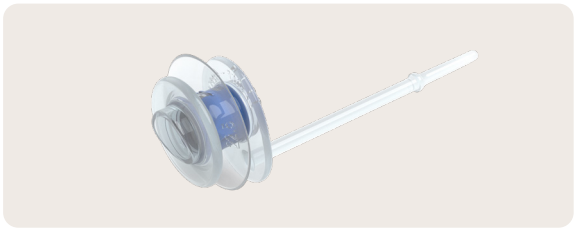
With Provox Vega XtraSeal patients can speak, eat and drink while the leakage is managed.

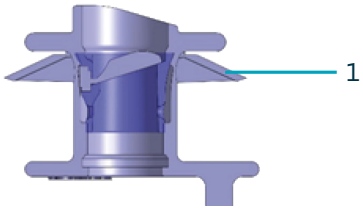
Key benefits[9,10]:

- Manages peripheral leakage
- Designed to conform to the tissue around the TE puncture
- Can be combined with Provox XtraFlange

Key features:

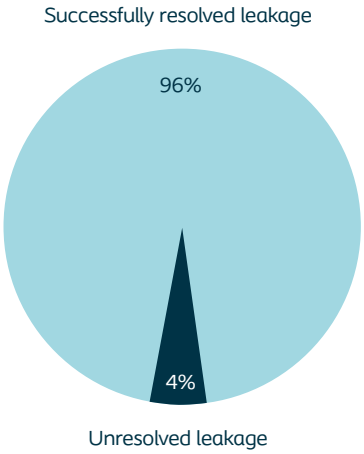
- Large esophageal flange (1) that is thin, concave and flexible
- Esophageal flange designed to provide protection from leakage when tract is between lengths





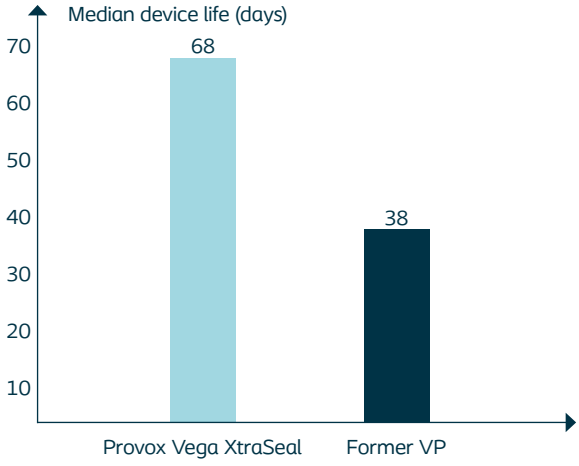
Clinical evidence

Prospective study with 13 patients. Provox Vega XtraSeal solved peripheral leakage in 96% of the patients.[9]



Petersen et al., 2018[4]

Provox Vega XtraSeal median device life was 68 days, compared to 38 days of the former voice prosthesis (VP).[9]



Petersen et al., 2018[4]

Provox Vega ActiValve

Longest median device life

Provox ActiValve is primarily designed for patients who experience early leakage through the voice prosthesis. The blue fluoroplastic material of the valve flap and ring appears insusceptible to destruction by Candida.[11] The magnets are added to support closure of the valve to prevent the valve flap from opening inadvertently when breathing or swallowing.

Clinical evidence shows that Provox ActiValve has a significantly longer median device life compared to all other voice prostheses.[2,12,15]

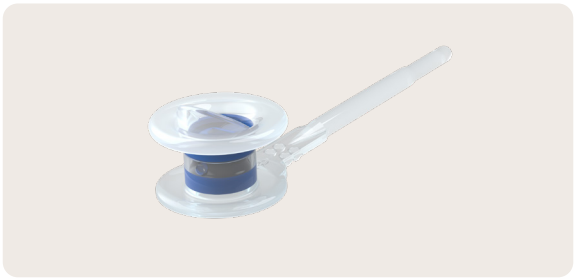


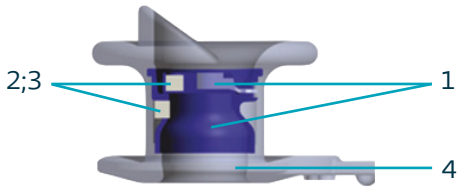
Key benefits[2,12-14]:

- Significantly longest median device life
- Manages early central leakage due to biofilm
- Manages central leakage due to underpressure

Key features:

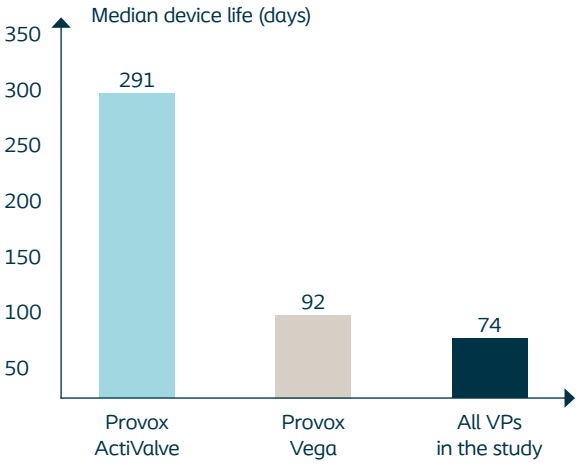
1. The ring and valve flap made of fluoroplastic appears insusceptible to destruction by Candida[11]
2. Two magnets help prevent inadvertent opening
3. Higher initial opening pressure to manage central leakage
4. Ultralow airflow resistance





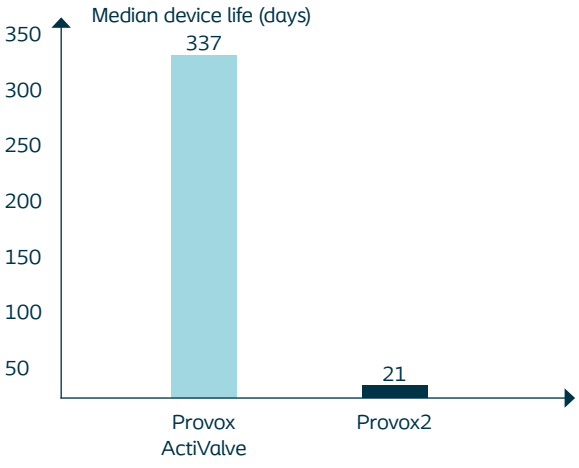
Clinical evidence

Prospective study with 102 patients. Provox ActiValve had significantly longer median device life compared to other tested voice prostheses.[2]



Kress et al., 2014[2]

Retrospective study including 42 patients with short device life. Provox ActiValve had on average 16-fold longer device life in patients requiring replacements due to underpressure or biofilm ($p < 0.001$).[14]



Soolsma et al., 2008[14]

Provox2

Robust and reliable

Provox2 was introduced in 1997 and is the predecessor of Provox Vega. It is a robust and reliable device, used by many patients through the years, and proven in a large number of clinical studies.[2,8,12,15-18]

Provox2 was the first voice prosthesis, where the replacement was carried out in an anterograde manner using a single-use insertion tool.

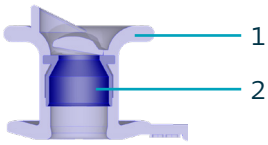
Key benefits[2,12,15]:

- Robust
- Reliable

Key features:

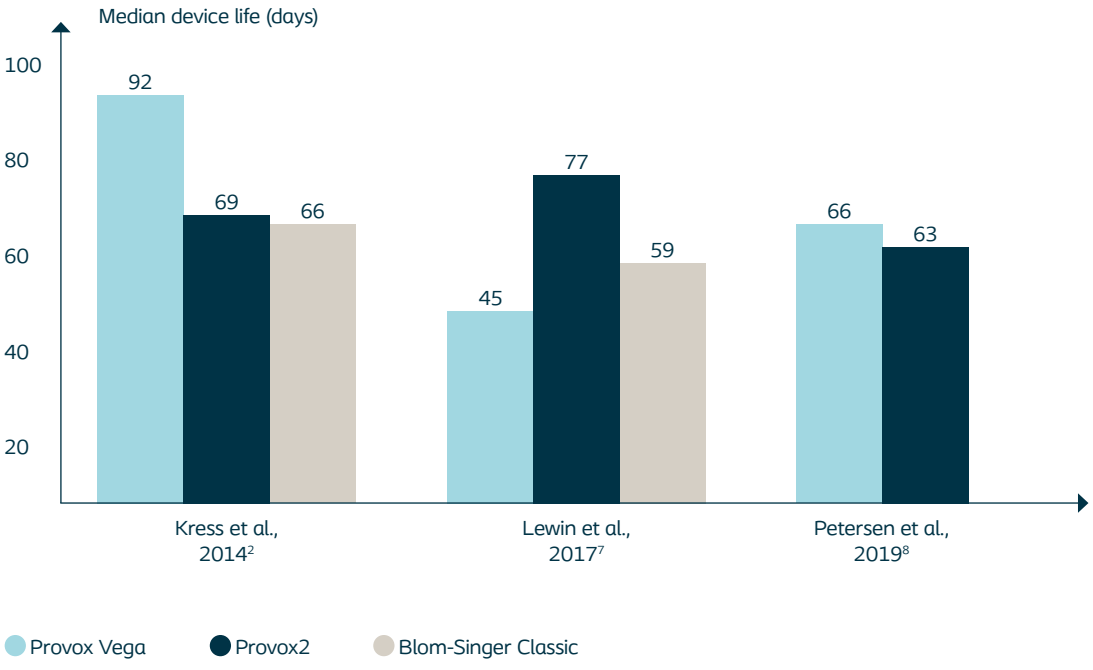
1. Robust flanges to prevent dislodgement
2. Radiopaque stabilizing blue ring
3. Available in 22.5Fr





Clinical evidence

Provox2 device life has been shown in clinical studies to be similar to other regular voice prostheses device life. Device life for all voice prostheses is influenced by factors such as health status, medication, first or consecutive device.[2,12,15]





Provox NiD

Patient changeable for more independence

Provox NiD is a non-indwelling voice prosthesis, designed to be replaced by the patient. It is easy to maintain and can be cleaned in situ or upon removal.[19]

Provox NiD has been shown in clinical studies to have longer device life, lower resistance and less effortful voicing compared to other non-indwelling voice prostheses.[12,19,20]

Provox NiD is designed with a safety medallion to help reduce the risk of aspiration of the voice prosthesis, and a high pull-out force to prevent unintentional dislodgement.

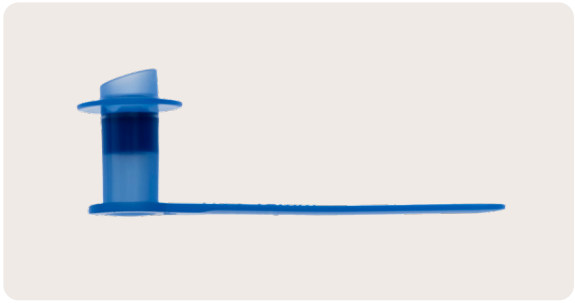


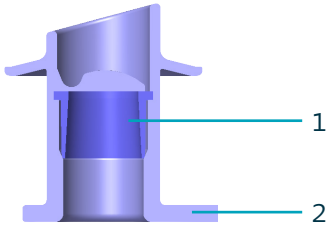
Key benefits[12,19,20]:

- Longer device life compared to other non-indwelling voice prostheses
- Less speaking effort compared to other non-indwelling voice prostheses
- Insertion pin designed for self-change
- Safety medallion for reliable securing
- Easy to visualize and maintain

Key features:

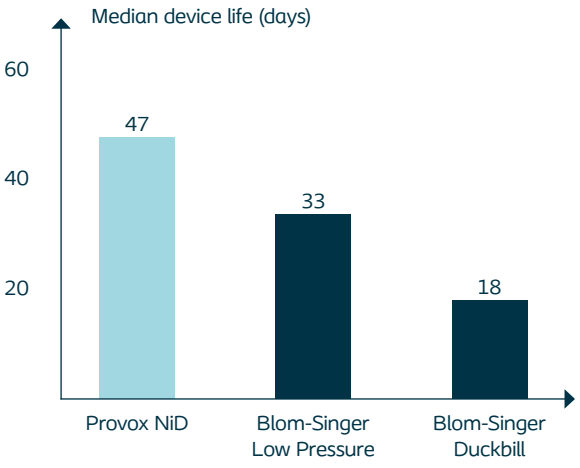
1. Large inner diameter for lower airflow resistance
2. Higher pull-out force designed to prevent unintentional dislodgement
3. Sturdy insertion pin
4. Safety medallion and beveled safety strap
5. Blue colored voice prosthesis, which is possible to clean in situ or upon removal





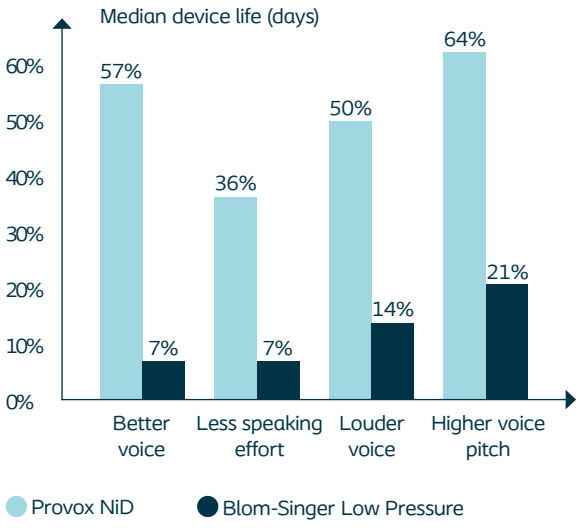
Clinical evidence

Retrospective study with 390 patients.
Provox NiDmedian device life (47 days) was longer than Blom-Singer Low Pressure (33 days) and Blom-Singer Duckbill (18 days).[12]



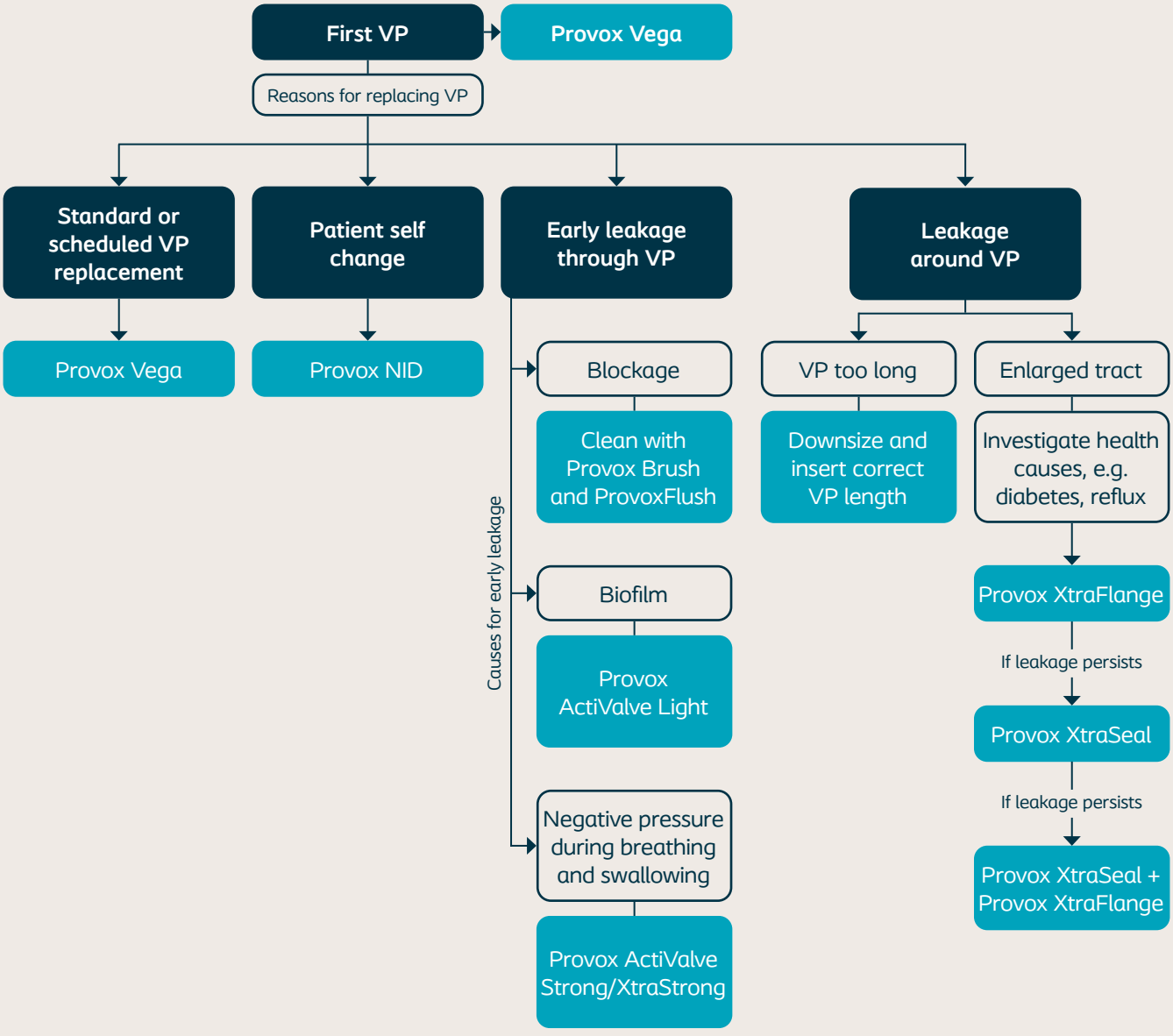
Lewin et al., 2017[12]

Prospective study with 15 patients.
Patients using Provox NiD reported less speaking effort, better and louder voice and higher pitch compared to Blom-Singer Low Pressure.[19]



Hancock et al., 2005[9]

Provox Voice Prostheses Guide





Provox Voice Prostheses Key Features







Feature	Provox Vega	Provox Vega XtraSeal	Provox ActiValve	Provox2	Provox NiD	Provox XtraFlange
Evidence-based better voice quality and less speaking effort[1]	✓	✓				
Low airflow resistance on speaking[14,10,9]	✓	✓	✓		✓	
Evidence-based longest device life compared to all other available VPs[2]			✓			
Evidence-based management of peripheral leakage due to additional large esophageal flange[4]		✓				
Additional tracheal flange to manage peripheral leakage[15]						✓
Manages central leakage due to under pressure[10]			✓			
The ring and valve flap made of fluoroplastic appears insusceptible to destruction by Candida[5]			✓			
Designed to conform to the tissue around the TE puncture	✓	✓				
Esophageal flange designed to provide protection from leakage when tract between lengths		✓				
Hood protects the valve flap	✓	✓				
Stabilizing blue ring designed to withstand tissue pressure and movement	✓	✓	✓	✓	✓	
Robust valve flap system making brushing through the VP possible	✓	✓	✓	✓	✓	
Insertion System with precisionengineered folding tool and adapting to preferred insertion method	✓	✓				
Can be changed by patient[9]					✓	







Accessories	Provox Vega	Provox Vega XtraSeal	Provox ActiValve	Provox2	Provox NiD	Provox XtraFlange
Provox Brush cleaning	✓	✓	✓	✓	✓	
Provox Flush cleaning	✓	✓	✓	✓	✓	
Provox Vega Plug temporarily stops central leakage	✓	✓				
Provox Plug temporarily stops central leakage			✓	✓		

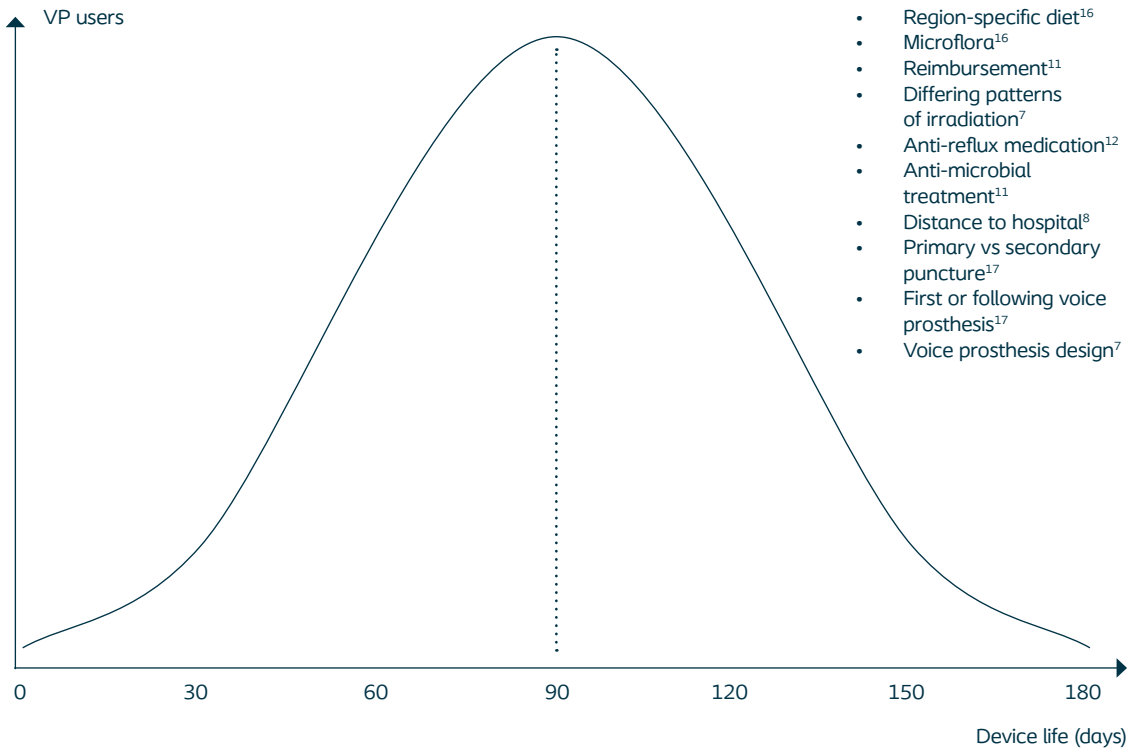
Voice prostheses device life varies due to influencing factors and design

Depending on a number of different circumstances, a voice prosthesis device life varies, and it is very difficult to predict the integrity of the voice prosthesis over a longer period of time. The material of the device will be affected by biofilm, and the structural integrity of the device will eventually deteriorate.

The reasons for difference in voice prosthesis device life include patient characteristics (e.g. cleaning, dietary patterns, use of anti-microbial treatment, supraesophageal reflux), treatment characteristics (e.g. prior radiotherapy), as well as socioeconomic and reimbursement factors. [8,11,12,16,17]

The design of the voice prosthesis also impacts device life. Provox ActiValve has been shown in a number of clinical studies to have the significantly longest median device life. [2,12,15]

Device life varies due to influencing factors:

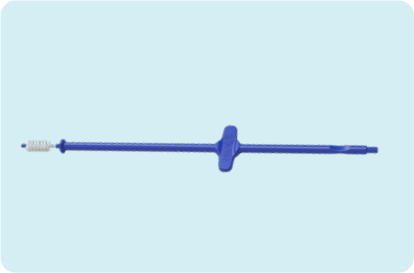


Note: This is only an illustration showing that device life time varies due to many factors.
In reality, device life is not normally distributed and what a clinicians sees in the practice can be along the entire spectrum.

Accessories

Provox Brush

For daily cleaning of the voice prosthesis.



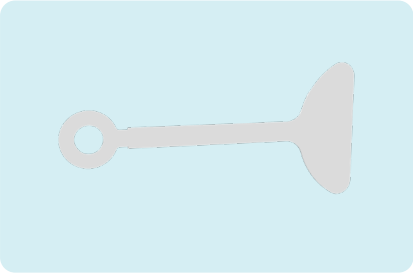
Provox Flush

For flushing after brushing.



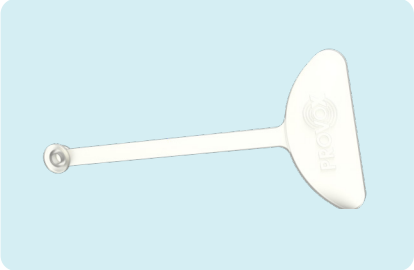
Provox XtraFlange

Rapid solution to manage leakage around.



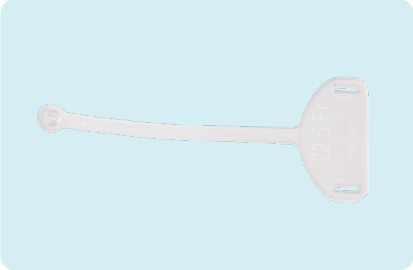
Provox Plug

Temporary first-aid to stop leakage through Provox ActiVal ve and Provox2.



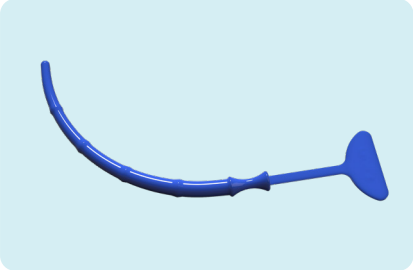
Provox Vega Plug

Temporary first-aid to stop leakage through Provox Vega and Provox Vega XtraSeal.



Provox Dilator

For upsizing the diameter of the TE puncture, or for temporarily blocking the puncture.



Provox Measure

To approximate the length of the TE puncture.



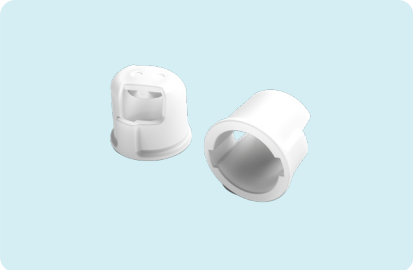
Provox Capsule

For Capsule Insertion.



Provox TwistLock

For Capsule Insertion.



Products

Provox Vega	Ref.no
Provox Vega 17Fr 4 mm	8270
Provox Vega 17Fr 6 mm	8271
Provox Vega 17Fr 8 mm	8272
Provox Vega 17Fr 10 mm	8273
Provox Vega 17Fr 12.5 mm	8274
Provox Vega 17Fr 15 mm	8275
Provox Vega 20Fr 4 mm	8276
Provox Vega 20Fr 6 mm	8277
Provox Vega 20Fr 8 mm	8278
Provox Vega 20Fr 10 mm	8279
Provox Vega 20Fr 12.5 mm	8280
Provox Vega 20Fr 15 mm	8281
Provox Vega 22.5Fr 4 mm	8282
Provox Vega 22.5Fr 6 mm	8283
Provox Vega 22.5Fr 8 mm	8284
Provox Vega 22.5Fr 10 mm	8285
Provox Vega 22.5Fr 12.5 mm	8286
Provox Vega 22.5Fr 15 mm	8287

Provox Vega XtreSeal	Ref.no
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Provox Vega XtraSeal 17Fr 6 mm	8289
Provox Vega XtraSeal 17Fr 8 mm	8290
Provox Vega XtraSeal 17Fr 10 mm	8291
Provox Vega XtraSeal 17Fr 12.5 mm	8292
Provox Vega XtraSeal 17Fr 15 mm	8293
Provox Vega XtraSeal 20Fr 4 mm	8294
Provox Vega XtraSeal 20Fr 6 mm	8295
Provox Vega XtraSeal 20Fr 8 mm	8296
Provox Vega XtraSeal 20Fr 10 mm	8297
Provox Vega XtraSeal 20Fr 12.5 mm	8298
Provox Vega XtraSeal 20Fr 15 mm	8299
Provox Vega XtraSeal 22.5Fr 4 mm	8300
Provox Vega XtraSeal 22.5Fr 6 mm	8301
Provox Vega XtraSeal 22.5Fr 8 mm	8302
Provox Vega XtraSeal 22.5Fr 10 mm	8303
Provox Vega XtraSeal 22.5Fr 12.5 mm	8304
Provox Vega XtraSeal 22.5Fr 15 mm	8305

Provox ActiValve	Ref.no
Provox ActiValve Light 4.5 mm	7150
Provox ActiValve Light 6 mm	7151
Provox ActiValve Light 8 mm	7152
Provox ActiValve Light 10 mm	7153
Provox ActiValve Light 12.5 mm	7154
Provox ActiValve Strong 4.5 mm	7160
Provox ActiValve Strong 6 mm	7161
Provox ActiValve Strong 8 mm	7162
Provox ActiValve Strong 10 mm	7163
Provox ActiValve Strong 12.5 mm	7164
Provox ActiValve XtraStrong 4.5 mm	7165
Provox ActiValve XtraStrong 6 mm	7166
Provox ActiValve XtraStrong 8 mm	7167
Provox ActiValve XtraStrong 10 mm	7168
Provox ActiValve XtraStrong 12.5 mm	7169

Provox2	Ref.no
Provox2 4.5 mm	7216
Provox2 6 mm	7217
Provox2 8 mm	7218
Provox2 10 mm	7219
Provox2 12.5 mm	7221
Provox2 15 mm	7224

Provox NiD	Ref.no
Provox NiD 17Fr 6 mm	7101
Provox NiD 17Fr 8 mm	7102
Provox NiD 17Fr 10 mm	7103
Provox NiD 17Fr 12 mm	7104
Provox NiD 17Fr 14 mm	7105
Provox NiD 17Fr 18 mm	7106
Provox NiD 20Fr 6 mm	7111
Provox NiD 20Fr 8 mm	7112
Provox NiD 20Fr 10 mm	7113
Provox NiD 20Fr 12 mm	7114
Provox NiD 20Fr 14 mm	7115
Provox NiD 20Fr 18 mm	7116

Provox Flush	Ref.no
Provox Flush	8109

Provox Brush	Ref.no
Provox Brush 4.5-10 mm	7204
Provox Brush XL 12-18 mm	7225
Provox Brush Long 4.5-10 mm	8404
Provox Brush Long XL 12-18 mm	8425

Provox Plug	Ref.no
Provox Plug	7205
Provox Vega Plug 17Fr	8119
Provox Vega Plug 20Fr	8129
Provox Vega Plug 22.5Fr	8139

Provox Dilator	Ref.no
Provox Dilator	7211
Provox Dilator 17	7122
Provox Dilator 20	7123

Provox XtraFlange	Ref.no
Provox XtraFlange 22.5Fr	7275
Provox XtraFlange 20Fr	7276
Provox XtraFlange 17Fr	7277

Provox Capsule	Ref.no
Provox Capsule 17Fr	7795
Provox Capsule 20Fr	7796
Provox Capsule 22.5Fr	7797

Provox Measure	Ref.no
Provox Measure	7270
Provox Measure Flanges	7271

Provox TwistLock	Ref.no
Provox TwistLock 22Fr	8032
Provox TwistLock 20Fr	8031
Provox TwistLock 17Fr	8030



Call us for more information

We work closely with doctors, speech and language therapist and people who breathe through a stoma. If you want to know more about Provox voice prostheses, don't hesitate to give us a call. We are always here to help you.

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