

Clinical Insights

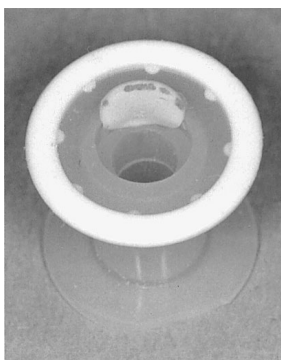
Fall, 1995

Eric D. Blom, Ph.D., Editor • Indianapolis, Indiana

A Small Colony of Yeast Can Make A Prosthesis Leak

Device A

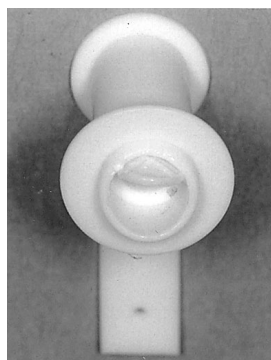
An Indwelling low pressure voice prosthesis (A) demonstrates yeast colonies (stained for visualization) attached to the undersurface of the valve member.



This prevented complete valve closure and resulted in leakage of liquid through the prosthesis.

Device B

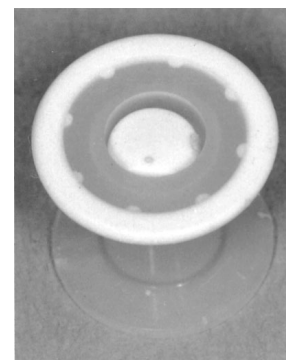
A 20 Fr. low pressure voice prosthesis (B) demonstrates how one small colony of yeast (stained for visualization), positioned on the valve seat prevents closure.



Leakage occurred with this prosthesis after approximately two weeks' use.

Device C

An Indwelling low pressure voice prosthesis (C) demonstrates incomplete valve closure caused by a small yeast colony (stained for visualization) attached to the edge of the valve.

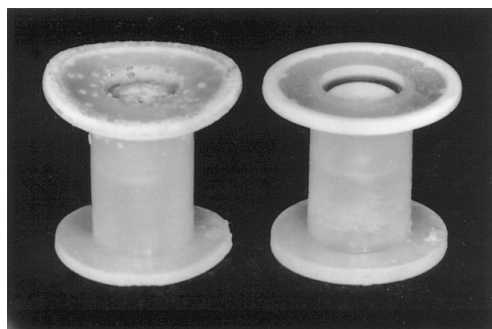


The attached particle interferes with the valve closure by rubbing against the inner wall of the prosthesis.

Correct Use of Nystatin

Yeast infections in the mouth are common in head and neck cancer patients, particularly among those who have been treated with radiation or chemotherapy. Many tracheo-esophageal voice prosthesis users experience early failure (leakage) of their voice prosthesis due to yeast colonization of the valve mechanism which prevents competent closure against liquids. Yeast from the mouth is continuously carried to the voice prosthesis via saliva.

Daily decontamination of the mouth with Nystatin Oral Suspension can significantly decrease yeast concentrations with subsequent reduction of yeast colonization of the voice prosthesis. One teaspoon of Nystatin twice a day should be swished in



Extension of device life for one patient is demonstrated with yeast colonization on first device (left) with no Nystatin regimen. Significant reduction is evident on second device (right) after routine use of Nystatin.

the mouth for at least three minutes or longer and then either swallowed or expectorated. Effective response depends on contact time, therefore users should actually time the three minute swish with a watch.

Tracheoesophageal Puncture Dilation Prior to Indwelling Voice Prosthesis Insertion

Placement of an "Indwelling" low pressure voice prosthesis requires pre-dilation of the tracheoesophageal puncture from 16 Fr. up to 22 Fr. prior to insertion of this 20 Fr. diameter device. Experience suggests that sufficient dilation requires placement of either a tapered silicone 22 Fr. tracheoesophageal dilator or a 22 Fr. catheter for a minimum of 6 to 8 hours. A sufficiently dilated puncture will permit removal of the dilator and gel cap insertion of the "Indwelling" low pressure voice prosthesis without resistance.

Patient: J.M.

Prosthesis: 1.8 Blom-Singer "Indwelling" Voice Prosthesis

Device life pre and post Nystatin use.

PLACEMENT-REMOVAL	PROSTHESIS LIFE	CONDITION OF PROSTHESIS
12/23/93-02/09/94	48 days	Leakage/yeast colonization
02/09/94-03/27/94	46 days	Leakage/yeast colonization
03/27/94-04/22/94	26 days	Leakage/yeast colonization
	Start Nystatin	
04/22/94-09/28/94	5 months	No leakage. No yeast. Prosthesis remains functional

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Let us know so you will continue to receive "Clinical Insights: Newsletter. Fax: 317-579-0476 or Phone: 1-800-283-1056, or write Eric D. Blom, Ph.D. at International Center for Post-Laryngectomy Voice Restoration, 7440 North Shadeland, Suite 107, Indianapolis, Indiana, 42650.