

Diagnosis and Management of Disorders
of the Nose and Sinuses

Samuel S. Becker, MD
Daniel G. Becker, MD, FACS

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ABOUT THE AUTHORS

Daniel G. Becker, MD, FACS

Dr. Daniel G. Becker, Founder and Medical Director of The Nose & Sinus Center, is a highly trained, board-certified specialist. Dr. Becker graduated magna cum laude from Harvard College in 1986 and was awarded a full merit scholarship to attend the University of Virginia Medical School. In addition to Medical School and Residency training at the University of Virginia, and board certification, Dr. Becker completed an additional one-year fellowship. His fellowship was a prestigious Nasal and Facial Plastic Surgery Fellowship with Dr. M. Eugene Tardy and Dr. Dean Toriumi, two world-renowned surgeons. Dr. Becker served as a clinical instructor at the University of Illinois, Chicago, teaching surgical techniques to residents.

Dr. Becker is Clinical Associate Professor in the Department of Otorhinolaryngology (ENT) at the University of Pennsylvania. Since Dr. Becker joined the University of Pennsylvania in 1997, the Department of ENT has been consistently rated by US News and World Report as one of the top 10 departments in the country.

Dr. Becker's subspecialty is minimally invasive treatment of sinus and nasal problems. Dr. Becker has designed numerous new surgical instruments that are used today in minimally invasive surgery. Also, he has helped developed new, less invasive techniques that are used today in sinus surgery. Dr. Becker brings this knowledge and experience to the Nose and Sinus Center.

Specific Experience

Dr. Becker has performed over 5000 nasal procedures, and he is constantly refining his techniques to pursue his goal of continually improving the safety, precision and comfort of his procedures. These procedures have included everything from the treatment of nasal blockage, sinus problems, and snoring to the delicate cosmetic re-sculpting of the nose for aesthetic reasons. He is fully experienced in all the latest techniques, including fiberoptic endoscopic techniques, lasers, powered instrumentation, computer navigation surgery, and radiofrequency reduction.

Knowledge and Specialties:

Nasal and sinus surgery are the focus of Dr. Becker's national and worldwide educational efforts. Dr. Becker has published over 70 articles in the medical literature, and he lectures nationally and internationally on nose and sinus treatment. He has been an invited guest lecturer at the prestigious University of Pennsylvania Rhinology Course, and has also spoken at the Cleveland Clinic, the University of California in San Francisco, the University of Virginia, and numerous other prestigious institutions. Dr. Becker was also the invited guest lecturer of the Japanese Rhinologic Society, where he gave a keynote speech on Powered Instrumentation and Image Guided Surgery in Endoscopic Sinus Surgery. Due to Dr. Becker's expertise and international

reputation, visiting surgeons from Sweden, Italy, Japan, Egypt and elsewhere have come to observe his techniques.

Research and Publications:

- Over 70 articles in the medical literature
- Author of *Treatment of Sinus and Nasal Disorders in the 21st Century*
- Author of *Textbook on Rhinoplasty (Cosmetic Nasal Sculpting)*
- Author of new text on *Revision Rhinoplasty*
- Co-editor In Chief of a Medical Journal entitled *Facial Plastic Surgery*
- Invited guest editor of specialty journal, entitled *Advances in Sinus and Nasal Surgery*

Samuel S. Becker, MD

Dr. Samuel S. Becker, Director of Rhinology at The Nose & Sinus Center, is a highly trained, board-certified specialist. Dr. Becker graduated from Amherst College in 1991 where he was inducted into the Phi Beta Kappa honor society. He completed his pre-medical studies at Harvard University, attended medical school at University of California San Francisco, and performed his residency training at the University of Virginia. Dr. Becker then completed an additional one-year fellowship specializing in sinonasal disorders and sinus surgery. His fellowship was a prestigious sinonasal disorders and sinus surgery fellowship with Dr. James A. Duncavage, a world-renowned surgeon at Vanderbilt University in Nashville, Tennessee. During this year Dr. Becker also served as a clinical instructor at Vanderbilt teaching surgical techniques to residents.

Dr. Becker maintains an active affiliation with Vanderbilt's nationally recognized Otolaryngology Department, where he is Clinical Instructor. At Vanderbilt, Dr. Becker works with a team of nationally and internationally recognized specialists researching multiple aspects of sinus disease. Dr. Becker's involvement with Vanderbilt allows his patients in South Jersey to have access to some of the most advanced, cutting edge sinus research being performed today.

Dr. Becker is one of the only otolaryngologists in the state of New Jersey with a subspecialty trained in the diagnosis and treatment of allergy and sinonasal disorders.

Dr. Becker's subspecialty is minimally invasive treatment of sinus and nasal problems. His practice is wholly dedicated to the treatment of patients with allergy and sinus problems. He has published widely on many aspects of nasal and sinus disease, including articles and book chapters on the latest medical therapies, as well as surgical techniques designed to increase the safety and efficacy of sinonasal surgery.

Due to his expertise, Dr. Becker is an invited Guest Editor of the prestigious journal – *Otolaryngologic Clinics of North America*. He has also been invited to write and edit an upcoming text, the first of its kind – entitled The Maxillary Sinus.

Dr. Becker led a course for other physicians entitled "Effective use of CT for Avoidance of Surgical Complication in Sinus Surgery" at the 2008 national meeting of Ear Nose and Throat doctors held in Chicago. He brings this knowledge and experience to the Nose and Sinus Center.

Specific Experience

Dr. Samuel Becker is one of the only surgeons in the state of New Jersey to complete subspecialty training in nasal and sinus disorders. As part of this training he participated in a wide variety of complex, tertiary care sinus procedures. He is fully experienced in all the latest techniques, including fiberoptic endoscopic techniques, lasers, powered instrumentation, computer navigation surgery, balloon sinuplasty, and radiofrequency reduction. He applies this expertise equally to help patients with problems ranging from mild allergies and trouble breathing through their nose to persistent sinusitis despite a history of multiple revision sinus surgeries.

Knowledge and Specialties: As with his brother, Dr. Daniel Becker, nasal and sinus surgery are the foci of Dr. Samuel Becker's educational efforts. Dr. Becker has published widely in the medical literature, and he lectures around the country on nose and sinus treatment. He has recently been an invited guest lecturer at Vanderbilt University, and the University of California in San Francisco. He recently taught an instructional course to other Otolaryngologists on "Effective use of CT for Avoidance of Surgical Complication in Sinus Surgery" at the upcoming national meeting of the American Academy of Otolaryngology-Head and Neck Surgery in Chicago. He has also been invited to lecture at the prestigious International Sisson Head and Neck Surgery course in February, 2009.

Research and Publications:

Dr. Becker is widely published in the area of nasal and sinus disorders. As noted above, he has been invited to become Guest Editor of the prestigious journal – *Otolaryngologic Clinics of North America*, as well as to write an upcoming text, the first of its kind – entitled The Maxillary Sinus. Below is a sampling of some of Dr. Becker's recent and upcoming journal articles:

- **Becker SS**, Beddow PA, Duncavage J. "Ethmo-Frontal angle: A new anatomic and radiologic landmark for use in sinus surgery." *Otolaryngology-Head and Neck Surgery*, 2009 (accepted).
- Witkopf M, **Becker S**, Duncavage J, Russell P. "Balloon sinuplasty for the surgical management of immunocompromised and critically ill patients with acute rhinosinusitis." *Otolaryngology-Head and Neck Surgery*, 2009 (accepted).
- **Becker SS**. "Surgical management of polyps in nasal airway obstruction" *Otolaryngologic Clinics of North America*, April 2009.
- **Becker SS**. Invited guest editor for "Surgical Management of Nasal Airway Obstruction: a Rhinologic Perspective." *Otolaryngologic Clinics of North America*, April 2009.
- Witkopf ML, Beddow PA, Russell PT, Duncavage JA, **Becker SS**. "Revisiting the interpretation of positive sinus CT findings: a radiologic and symptom-based review." *Otolaryngology-Head and Neck Surgery*, 2009 (accepted).
- **Becker SS**, Duncavage JA, Russell PT. "Endoscopic endonasal repair of difficult-to-access cerebrospinal fluid leaks of the frontal sinus." *American Journal of Rhinology*, 2009 (accepted).
- **Becker SS**, Creech CB, Russell PT, Duncavage JA. "Current issues in the management of sinonasal Methicillin Resistant Staphylococcus Aureus." *Current Opinion in Otolaryngology-Head and Neck Surgery*, 2009. (accepted)
- **Becker SS**, Dobratz E, Stowell N, Barker D, Park SS. "Revision Septoplasty: Review of Sources of Persistent Nasal Airway Obstruction?" *American Journal of Rhinology*, July 2008.
- Han JK, Becker SS, Bomeli SR, Gross CW. "Endoscopic localization of the anterior and posterior ethmoid arteries." *Annals of Otolaryngology, Rhinology, and Laryngology*, 2008; 117(12): 931-935.
- **Becker SS**, Duncavage JA. "The Role of Steroid Injection in the Management of Sinonasal Polyps." *Current Opinion in Otolaryngology-Head and Neck Surgery*, 2008; 16(1): 38-43.
- **Becker SS**, Bomeli SR, de Alarcon S, Han JK, Gross CW. "The Surgical Management of Chronic Sinusitis in Patients with Cystic Fibrosis: a Decade of Experience." *American Journal of Rhinology*, 2007; 21(4): 478-482.
- **Becker SS**, Han JK, Nguyen TA, Gross CW. "Initial Surgical Treatment for Chronic Frontal Sinusitis: A Pilot Study." *Annals of Otolaryngology, Rhinology, and Laryngology*, 2007; 116(4): 286-289.
- **Becker SS**, Rasmany JK, Han JK, Gross CW. "Steroid Injection for Nasal Polyposis: The University of Virginia Experience." *American Journal of Rhinology*, 2007; 21(1): 64-69.
- **Becker SS**, Bomeli S, Gross C, Han J. "Limits of Endoscopic Visualization and Instrumentation in the Frontal Sinus." *Otolaryngology-Head and Neck Surgery*, 2006 Dec; 135 (6):917-921.

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- Becker DG, **Becker SS**. “Reducing Complications in Rhinoplasty.” *Otolaryngologic Clinics of North America*, 2006 June; 39(3): 475-492.
- Lanfranchi PV, Brigandi LA, **Becker SS**, Becker DG. “Multimodality approach to sinus and nasal disorders: Results of treatment as determined by a patient survey.” *ENT Journal*, Jan 2006.
- Becker DG, **Becker SS**. “A dedicated specialty center for nose and sinus care: an organized approach.” *Journal of Long-Term Effects of Medical Implants*, 2005; 15(3): 273-282.
- Chang J, **Becker S**, Park S. "Nasal Reconstruction: The State of the Art." *Current Opinion in Otolaryngology-Head and Neck Surgery*, 2004 Aug; 12(4):336-343.
- **Becker SS**, Becker DG. "Treatment of Nasal Obstruction from Nasal Valve Collapse with Alar Batten Grafts." *Journal of Long-Term Effects of Medical Implants*, 2003; 13(3):259-269.
- Landranchi PV, Steiger J, Sparano A, Brigandi L, Lin G, **Becker SS**, Becker DG. “Diagnostic and surgical endoscopy in functional septorhinoplasty.” *Facial Plastic Surgery*, 2004; 20(3):207-215.

Ongoing Studies:

Dr. Becker is currently involved with multiple studies aimed at improving management of patients with sinus and nasal disorders. A list of some of these ongoing projects is below:

- “Alternative treatment strategies in the management of acute rhinosinusitis.”
- “The effect of sinus surgery on patients with asthma: a review of 100 patients.”
- “Intracranial abscess after anterior skull base defect: does pneumocephalus play a role?”
- “The Condemned Maxillary Sinus: a Histological Review”
- “Septic cavernous sinus thrombosis in association with sinusitis: a case report”
- “Endoscopic Endonasal Caldwell-Luc: A New Approach to a Proven Procedure”
- “Report of a new radiologic landmark in the evaluation of sinonasal anatomy”
- “Frontal sinus trephination: an adjunctive procedure for the 21st century sinus surgeon”
- “Frontal sinus osteoma with intracranial extension: review of a case”
- “Review of sources of surgical failure leading to revision sinus surgery: a prospective study”
- “Review of cases of cerebrospinal fluid leak repair and endoscopic skull base reconstruction”