



### **Bronchiectasis**

[Broccoli-with-tassels](#)

Cilia in airways help to clear mucus, dust and microbes out of the airways. In Kartagener Syndrome, the defective cilia can lead to infections that can damage the walls of the airways which leads to bronchiectasis.

### **Recurrent Sinusitis**

[Sinner with Recurrent-clock](#)

In Kartagener Syndrome, the defective cilia can lead to opportunistic infections due to inability clearing out microbes leading to recurrent sinusitis.

### **Chronic Ear Infections**

[Old-crone with Ear alongside Bacteria-guys and Viruses](#)

Chronic ear infections can be seen in patients with Kartagener Syndrome due to the defective cilia in the ear. This prevents the effective clearance of the mucus and microbes from the ears leading to risk of chronic ear infections. Paranasal sinuses and the middle ear are connected via the Eustachian tubes in the posterior pharynx, resulting in opportunity for viruses and bacteria to transport and infect seemingly different areas of the upper airway.

### **Conductive Hearing Loss**

[Musical-Conductor with Plugged-ears](#)

Conductive hearing loss occurs when there is a problem transferring sound waves anywhere along the pathway through the outer ear, tympanic membrane (eardrum), or middle ear (ossicles). Patients with Kartagener Syndrome can present with chronic middle ear infections interrupting audiological function.

### **Situs Inversus (Dextrocardia on Chest X-Ray)**

[Inverted-zit and Dexter holding Heart-cards and a Chest-x-ray](#)

Patients with Kartagener Syndrome have Dextrocardia with situs inversus. Situs inversus refers to the mirror-image reversal of the organs in the chest and abdominal cavity. In people affected by dextrocardia, the tip of the heart points towards the right side of the chest instead of the left side. Most patients with this display no sign or symptom and it is not discovered until they have a chest x-ray done.

## **Screening**

### **Decreased Nasal Nitric Oxide Used as Screening Test**

[Down-arrow on Nose of Ox opening Screened-window holding a Nitro-tank](#)

Nitric oxide is continually synthesised in the respiratory epithelium and is upregulated in response to infection or inflammation. Although Kartagener Syndrome patients have chronic infections, nasal nitric oxide in such patients is markedly reduced and is used as a screening test for this condition.