# CLINICAL ATTRIBUTES OF N-13 AMMONIA

SUPERIOR IMAGE QUALITY

While Cardiac PET has been shown to be superior to SPECT, not all tracers are equal. Considered an optimal tracer for myocardial perfusion imaging, N-13 Ammonia provides[1]:

- High spatial and contrast resolution images
- High first-pass extraction and retention in the myocardium
- Consistently high-quality diagnostic studies regardless of patient size or gender
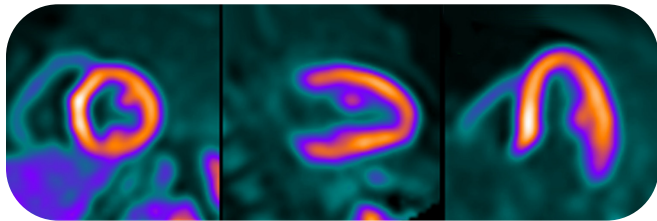
IMPROVED DIAGNOSTIC ACCURACY

N-13 Ammonia affords high sensitivity and overall accuracy for detecting CAD. The addition of coronary artery calcium score (CACS) can improve CAD risk stratification.[2]
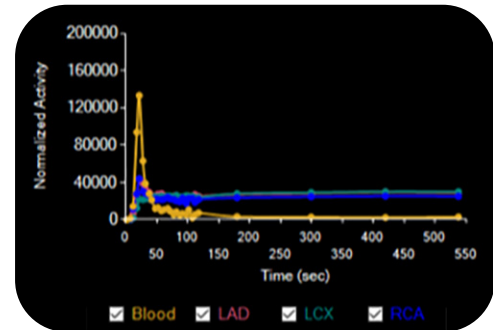
FEW CORRECTION FACTORS WITH MBF

N-13 Ammonia has more reliable quantification, particularly at higher flows (e.g. stress conditions) resulting in smaller correction factors.[3]

BETTER EXTRACTION FRACTION AND RETENTION

N-13- ammonia extraction is close to 100% at rest and stress, (0.95 – 0.99) making it an excellent myocardial blood flow tracer. In addition, it also has the highest retention of the currently available tracers (0.50 – 0.90).[4]

1. Fiechter et al. *J Nucl Med 2012*;53:1230-1234.
2. Fathala A et al. *Cardiovasc Diagn Ther* 2019 Feb;9(1):35-42.
3. Murthy, VL, *J Nucl Med* 2018 Feb;59(2):273-293.
4. Dekemp RA et al. *Cardiol Clin* 2016;34:37–46.

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