

**Illien S, H Omran, D MacCarter, J St. Cyr. Ribose improves myocardial function in congestive heart failure. *FASEB J* 2001;15(5):A1142.**

Ribose (R), a natural occurring pentose sugar, has shown a relationship between the recovery of myocardial adenosine triphosphate (ATP) levels, and diastolic compliance following ischemia. Suppressed ATP levels may play a role in congestive heart failure (CHF). A double blind crossover study in 12 adult patients (PTS) with unstable coronary artery disease and CHF was performed. Ten PTS has previous myocardial infarction and 4 underwent revascularization. PTS were randomized to either oral (5 gms/dose, tid) of R or Dextrose (D) for 3 wks; a 1 wk washout period, followed by a 3 wk crossover with the other test substance. All patients underwent echocardiography (ECHO) and quality of life assessments. No adverse side effects were noted with either test substance. ECHO revealed an improvement in deceleration time of the E wave (Edc,msec), stroke volume index (SVI, ml/body mass index), ejection fraction (EF,%), atrial contribution (Ac,%), and left ventricular systolic volume (LVVs, ml) with R (see table).

Thpy	Edc#	SVI*	EF*	Ac#	LVVs*
R	193.5±45.9	2.63±.57	51.0±7.3	45.3±9.2	64.4±24.8
D	250±70.2	1.99±.71	40.9±14.2	39.2±9.7	78.4±27.0

(\*p<.005, #p<.01)

R appears to significantly improve both diastolic and systolic function in CHF patients with ischemic heart disease.