Liu, M. H., *et al* (2012). **Edema index-guided disease management improves 6-month outcomes of patients with acute heart failure.** *International Heart Journal*, 53(1), 11-17.

Acute heart failure patients who are treated with extracellular water (ECW) ratio management had better outcome compare to the patients who only had general treatment with case management team. ECW ratio had better correlation with patient's mortality and event lowering effect compare to a cardiovascular disease prognostic factor BNP (B-type natriuretic peptide). The study result is implying that InBody can be used in controlling cardiovascular disease by monitoring ECW ratio.

Liu, M. H., *et al* (2012). **Edema index established by a segmental multifrequency bioelectrical impedance analysis provides prognostic value in acute heart failure.** *Journal of Cardiovascular Medicine*, 13(5), 299.

Edema index assessed by using ECW ratio was done by using InBody to estimate the 6-month outcome of acute heart failure patients. Both predischarge edema index and BNP were measured. On the basis of a cutoff value of edema index of 0.390, those with edema index of more than 0.390 were older, had lower blood albumin and hemoglobin levels, and had higher predischarge BNP levels, functional class, incidence of diabetes mellitus, valvular cause, and diuretic use. The edema index provided a prognostic value superior to that of BNP. As the edema index provides 6-month prognostic values in patients hospitalized due to acute heart failure reducing the edema index in high-risk patients results in lowered re-hospitalized rate.

Davenport, A. (2012). **Changes in N-Terminal Pro-Brain Natriuretic Peptide Correlate with Fluid Volume Changes Assessed by Bioimpedancei n Peritoneal Dialysis Patients.** *American Journal of Nephrology*, 36(4), 371-376.

One of the cardiovascular risk factor N-terminal pro-brain natriuretic peptide (NTproBNP) is correlated with changes edema index assessments made by InBody in peritoneal dialysis outpatients. As InBody measures ECW, rather than effective plasma volume, serial NTproBNP determinations may prove an adjunct to the clinical assessment of volume status in peritoneal dialysis patients.

Lim, S., *et al* (2006). **The relationship between body fat and C-reactive protein in middle-aged Korean population.** *Atherosclerosis*, 184(1), 171-177.

High-sensitivity C-reactive protein (hsCRP) has been identified as a strong independent risk factor of cardiovascular events. Of obesity indices examined, percent body fat (PBF) measured by InBody was most strongly correlated with log-transformed hsCRP levels. In multiple regression model including age, sex, community, blood pressure, BMI, WC, WHR, fasting glucose, insulin, lipids, smoking, alcohol and exercise, PBF was most potently associated with hsCRP (P<0.0001). PBF accounted for 13.8% of the variability in hsCRP level, whereas other factors less than 6%. This result suggests that PBF is a strong associating factor of hsCRP levels of the various obesity indices.

Gil, T.Y., *et al* (2008). **Intima-media thickness and pulse wave velocity in hypertensive adolescents.** *Journal of Korean medical science*, 23(1), 35-40.

Increased intima-media thickness (IMT) and pulse wave velocity (PWV) are useful predictors of cardiovascular risk in hypertensive adolescents. High systolic blood pressure significantly correlated with height, weight, BMI, obesity index, arm circumference, fat mass, and fat distribution and these factors were measured by InBody. Hypertensive adolescents had significantly greater cIMT (carotid IMT) and lower elastic properties such as cross-sectional compliance and distensibility of the carotid artery. The carotid IMT significantly correlated with brachial-ankle PWV.