OBJECTIVES: The intent of this study is to further characterize the effects of d-cycloserine augmentation on negative symptoms, neuropsychological test, and cerebrospinal fluid (CSF) and serum markers of glutamatergic, dopaminergic, and serotonergic activity.

RESEARCH DESIGN: As a collaborative site of the Freedom Trail Clinic of the Eric Lindemann Mental Health Center, patients with schizophrenia, treated with stable doses of conventional antipsychotic medication for at least four months and exhibiting clinically-significant negative symptoms were recruited from the Bedford VA. Additionally, patients met criteria for primary deficit syndrome using the Schedule for the Deficit Syndrome. Patients were excluded on the basis of presence of other axis I disorders (including major depressive episode and active substance abuse), parkinsonism, history of phencyclidine use, or presence of significant medical or other neurological illness. An additional component of this study was an MRI brain scan.

METHODOLOGY: Patients were randomly assigned to d-cycloserine or placebo for a six month, double blind fixed dose trial. A battery of clinical rating scales, collection of serum blood samples, and cognitive testing were done at baseline and various times during the 6 months.

FINDINGS: Recruitment has closed. There were three patient entries and no adverse events attributable to study medication. Data analysis is completed; manuscript is revision.