TESTS FOR NICOTINE DEPENDENCE
(In chronological order)

1a) The Fagerstrom Test for Nicotine Dependence (FTND)


This 6 item test was developed with the aim to diagnose the degree of dependence among smokers coming to a clinic seeking help with stopping smoking. The test can be filled out either by the therapist/researcher or the smoker. Originally there was 8 items but two questions, degree of inhalation and nicotine content in the brand, was abandoned since it did not discriminate well and added information above what the present 6 items did. It has been found to correlate with need to smoke in the night, ability to stop smoking, withdrawal symptoms including physiological variables such as heart rate and body temperature, nicotinic, dopaminergic receptor’s genetic background, dopamine release from striatum, regional brain activity cotinine concentrations, vulnerability to lung cancer and COPD. The test does not discriminate well among very low dependent smokers such as adolescent non-daily smokers.

Karl O. Fagerstrom

1b) The Heaviness of Smoking Index (HSI)


During the validation work of the FTND it became evident that 2 questions were more critical and informative than the others. Most of the predictive power was accomplished by asking just the two questions How soon after you wake up do you smoke your first cigarette and How many cigarettes do you smoke per day. These two questions have thus been used as a short version of the full FTND.

Karl O. Fagerstrom

2) The Cigarette Dependence Scale (CDS)


The CDS is a brief, self-administered scale that has good psychometric characteristics (content validity, test-retest reliability, association with cotinine and CO, sensitivity to change over time). In prospective studies, it predicted the intensity of withdrawal symptoms, and in some, but not all studies, it also predicted smoking abstinence. CDS is suited for individuals with both high and low levels of dependence. There are 2 versions of CDS (12 and 5 items) which have similar psychometric properties.

Jean-François Etter

3) The Nicotine Dependence Syndrome Scale (NDSS)
The Nicotine Dependence Syndrome Scale is a 19-item questionnaire designed to yield continuous measures of multiple theoretically-derived dimensions of dependence. It yields scores for (a) Drive, which captures craving and withdrawal and the subjective sense of compulsion to smoke; (b) Priority, the behavioral preference of smoking over other reinforcers; (c) Tolerance, reduced sensitivity to smoking’s effects; (d) Continuity, the regularity of smoking; and (e) Stereotypy, the rigidity of smoking patterns and tendency to smoke in the same way regardless of circumstances. It also yields a single summary score (NDSS-T) for dependence. The scale has been validated in adult population and treatment samples, and validated variations are available for teen smokers.

Saul Shiffman

4) **Hooked on Nicotine Checklist (HONC)**


The Hooked on Nicotine Checklist (HONC) is a 10 item self-administered measure of dependence that has been validated for use with adolescents and adults, and for smoked and oral tobacco products. The HONC produces a dependence score from 0 to 10. The HONC is probably the most sensitive measure of early or low level dependence. Endorsement of any of the 10 HONC items indicates a loss of autonomy (the presence of symptoms that hinder cessation). Despite its sensitivity, the HONC has demonstrated excellent predictive validity in longitudinal studies and does better than the mFTQ in predicting relapse in adolescents. As the HONC does not use cigarette consumption as a proxy for dependence, it is not subject to measurement bias that arises when cigarette affordability differs between countries, or over time. The HONC has excellent psychometric properties with adults and adolescents and is in use in 19 languages as a quantitative measure of dependence in research and as a self-assessment tool in educational and healthcare settings.

Joseph DiFranza

5) **The Autonomy Over Smoking Scale (AUTOS)**


The Autonomy over Smoking Scale (AUTOS) is a 12 item self-administered instrument designed to address some of the limitations of the FTND. It can be used to guide tailored smoking cessation counseling because it includes subscales that measure physical dependence (withdrawal), psychological dependence, and cue-induced urges to smoke. The AUTOS has demonstrated validity and excellent internal and test-retest reliability. Unique among dependence measures, the AUTOS (1) can be used unchanged with adolescents and adults, (2) can be used (with minor word substitutions) for oral and smoked tobacco products, and (3) can be administered both before and after smoking cessation to track the resolution of symptoms and to guide relapse-prevention counseling. It is in use in Dutch, English, French, German, and Spanish.

Joseph DiFranza