# Down Syndrome Health Guidelines — 13 Years to Adulthood

## In Addition to Recommended Well Child Practices

**updated 2/2/10**

| | Age in years | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Medical Issues** | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20-29 |
| Growth/Nutrition[1] | BMI at every visit.<br>Encourage physical activity, recreation, a high fiber healthy diet, use low fat milk, avoid sweet beverages.<br>Repeat celiac screen if clinically indicated. | | | | | | | |
| Behavior/Development[2] | Review and assess education – socialization – puberty – menses/pregnancy-<br>vocational training - transition to adult care - group homes/independent living. | | | | | | | |
| Patient and Parent Support | Assess needs and offer resources at every visit: support groups/organizations, sibling issues,<br>respite, recreation, sexuality, financial planning, independent living. | | | | | | | |
| ORL and Hearing[3] | Annual audiology referral for hearing assessment.<br>Screen for obstructive sleep apnea at every visit, obtain sleep study if +. | | | | | | | |
| Vision | Annual ophthalmology referral for vision assessment. | | | | | | | |
| Dental | Dental visit with cleaning every 6 months.<br>Discuss brushing twice daily, flossing, fluoride in water, avoid frequent snacking, sweet beverages, sodas. | | | | | | | |
| Cardiology[4] and Renal | At risk for mitral prolapse and aortic regurgitation as young adults, hypertension if obese.<br>ECHO if not performed at birth<br>Consider renal US if not done at birth[4] | | | | | | | |
| Thyroid[5] | TSH, thyroid antibodies, free $T_4$ annually. | | | | | | | |
| Atlantoaxial Instability or Subluxation | Neurological exam and ROS at each visit.<br>Imaging if symptomatic or in contact sports[6]. | | | | | | | |
| Assess Contraceptive Need | Consider need for pelvic exam and GYN referral | | | | | | | |

[1] At risk for obesity, osteopenia, constipation, celiac disease.
[2] At risk for depression, ADHD, oppositional behavior.
[3] 75% prevalence of hearing loss and OSA.
[4] 50% prevalence of heart defects, 3% renal abnormalities.
[5] 15% prevalence of thyroid disease.
[6] Cervical spine x-rays: flexion, neutral and extension.

By W. Risko, MD and J. Ott, PPOC & B. Skotko, MD and E. Davidson, MD, Children's Hospital Boston from multiple sources, AAP 2001 and DSMIG 2007 guidelines.