

Turner Syndrome Checklist

The following are suggested ages for health checks. Check at other times if there are parental or other reasons for concern

| Birth to 5 years | 0-6 mos. | 6-12 mos. | 1 yr. | 2 yrs. | 3 yrs. | 4 yrs. | 5 yrs. |
|---|----------|--------------|-------|---------------|-----------|-----------|--------|
| Completed: | Date: | Date: | Date: | Date: | Date: | Date: | Date: |
| Physical exam, including height, weight, blood pressure, skin exam: at diagnosis and yearly | | | | | | | |
| Developmental & behavioral screening: yearly | | | | | | | |
| Neuropsych evaluation: in early life (preschool) | | | | | | | |
| Audiometric evaluation: @ 9-12 mo. and q 3 years | | | | | | | |
| Ophthalmologic exam: 12-18 mo. or at diagnosis | | | | | following | diagnosis | |
| Renal ultrasound: at diagnosis; afterward as indicated | | | V | vhen diagnose | d | | |
| Pediatric dental specialist: by 2 years, then prn | | | | | | | |
| Nutritional evaluation and celiac screen: q 2 years | | | | | | | |
| Thyroid function tests: yearly, starting at 4 yrs. | | | | | | | |
| Scoliosis/orthopedic evaluation: yearly | | | | | | | |
| Resting EKG and QTc measurement: at diagnosis | | | V | vhen diagnose | d | | |
| Transthoracic echocardiogram (TTE): at diagnosis | | | V | hen diagnose | d | | |
| Cardiac MRI (CMR): when feasible without anesthesia | | | | when feasible | | | |
| TTE or CMR, after initial: Absent aortic abnormalities, q 5 yrs. | | | | | | | |
| If bicuspid aortic valve or coarctation or TS-specific aortic size Z-score >3, yearly | | | | | | | |

| 5-12 years | 6 yrs. | 7 yrs. | 8 yrs. | 9 yrs. | 10 yrs. | 11 yrs. | 12 yrs. |
|---|--------|--------|--------|--------------|-------------|---------|---------|
| Completed: | Date: | Date: | Date: | Date: | Date: | Date: | Date: |
| Physical exam, including height, weight, blood pressure, skin exam; at diagnosis and yearly | | | | | | | |
| Dermatology follow-up for nevi, prn | | | | | | | |
| Developmental & behavioral screening: yearly | | | | | | | |
| Neuropsych evaluation at school entry | | | | | | | |
| Audiometric evaluation: q 3 years | | | | | | | |
| Comprehensive ophthalmologic exam: at diagnosis | | | fo | lowing diagn | osis | | |
| Nutritional evaluation and celiac screen: q 2 years | | | | | | | |
| Thyroid function tests: yearly. | | | | | | | |
| Liver function tests: age 10 years and then yearly | | | | | | | |
| Scoliosis/orthopedic evaluation: yearly | | | | | | | |
| Orthodontic: by age 7, then prn | by a | ge 7 | | | | | |
| 25-OH vitamin D level: 9-11 yrs., then q 2-3 yrs. | | | | be | ween 9 & 11 | yrs. | |
| Glucose, HbA1c: age 10 years and then yearly | | | | | | | |
| TTE or CMR, after initial: Absent aortic abnormalities, q 5 yrs. | | | | | | | |
| If bicuspid aortic valve or coarctation or TS-specific aortic size Z-score >3, yearly | | | | | | | |



Turner Syndrome Checklist (cont.)

The following are suggested ages for health checks. Check at other times if there are parental or other reasons for concern

| 13-18 years | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 yrs. |
|---|---------|---------|---------|---------|--|---------|
| Completed: | Date: | Date: | Date: | Date: | Date: | Date: |
| Physical exam, including height, weight, blood pressure, skin exam; at diagnosis and yearly | | | | | | |
| Dermatology follow-up for nevi, prn | | | | | | |
| Neuropsych eval. at transition to high school/higher ed. | | | | | | |
| Audiometric evaluation: q 3 years | | | | | | |
| Comprehensive ophthalmologic exam: yearly | | | | | | |
| Nutritional evaluation and celiac screening: q 2 years | | | | | | |
| Scoliosis/orthopedic evaluation: yearly | | | | | | |
| 25-OH vitamin D level: q 2-3 years | | | q 2 | -3 yrs. | | |
| Glucose, HbA1c: yearly | | | | | | |
| TTE* or CMR*, after initial: Absent aortic abnormalities, q 5 yrs. | | | | | follow Adulthood guidelines in the table below | |
| If bicuspid aortic valve, coarctation, TS-specific aortic size Z-score >3, or hypertension, yearly until 16 | | | | | | |

| Adulthood | frequency | | |
|---|---|--|--|
| Dietary/exercise counseling for prevention of obesity | yearly | | |
| Estrogen treatment | ongoing | | |
| Evaluation of ovarian function, family planning counseling | as indicated | | |
| Routine pelvic/pap smear | as indicated | | |
| Hypertension monitoring | yearly | | |
| Cardiac studies (TTE* or CMR*) | based on risk level, see guidelines (Gravholt et al.; 2017) | | |
| Fasting glucose, HgbA1C , AST, GGT, alkaline phosphatase | yearly | | |
| Lipids if at least one other CV risk factor is present or regional recommendation | yearly | | |
| Thyroid function tests | Yearly; include antibodies if previously negative | | |
| Skin examination | yearly | | |
| 25-OH vitamin D level | q 3-5 years | | |
| DEXA scan | q 5 years | | |
| Celiac screen | when symptoms indicate | | |
| ENT/audiometric evaluation | q 3-5 years | | |

^{*} TTE, transthoracic echocardiography; CMR, cardiac magnetic resonance imaging

Vana Raman, MD; based on Gravholt et al. Clinical practice guidelines for the care of girls and women with Turner syndrome: proceedings from the 2016 Cincinnati International Turner Syndrome Meeting. Eur J Endocrinol. 2017. PubMed abstract