

Alpha-fetoprotein

see [Cerebrospinal fluid alpha-fetoprotein](#).

see [Maternal serum alpha-fetoprotein](#).

see [Serum alpha-fetoprotein](#).

Alpha-fetoprotein (AFP) is a normal fetal [glycoprotein](#) (MW = 70,000) initially produced by the [yolk sac](#), and later by the fetal [liver](#). It is found in the [fetal circulation](#) throughout [gestation](#), and drops rapidly during the first few weeks of life, reaching normal adult levels by age 1 yr. It is detectable only in trace amounts in normal adult males or nonpregnant females. It is present in [amniotic fluid](#) in normal pregnancies, and is detectable in maternal serum starting at ≈ 12 –14 weeks gestation, increasing steadily throughout pregnancy until ≈ 32 weeks ¹⁾.

Alpha-fetoprotein (AFP, alpha-fetoprotein; also sometimes called [alpha-1-fetoprotein](#), [alpha-fetoglobulin](#), or [alpha fetal protein](#)) is a [protein](#) that in humans is encoded by the AFP gene.

The AFP gene is located on the q arm of [chromosome 4](#) (4q25).

It is thought to be the fetal form of serum [albumin](#). AFP binds to [copper](#), [nickel](#), [fatty acids](#), and [bilirubin](#) and is found in monomeric, dimeric, and trimeric forms.

Alpha-fetoprotein (AFP) is elevated with [endodermal sinus tumors](#), [embryonal carcinoma](#) and occasionally with [teratomas](#).

Elevated in [sacroccoccygeal teratoma](#).

Twelve cases of endodermal sinus tumors were reviewed. There were 10 females and 2 males with a median age at presentation of 3 years. The primary site was sacroccoccygeal in 4 patients, vaginal in 3, retroperitoneal in 2, and testicular, ovarian and left chest wall in one each. The diagnosis rested on histopathological examination and elevation of serum alfa feto protein levels (median 46,200 ng/ml). Two patients had Stage I disease, 9 had Stage III and one had Stage IV disease. Patients were managed by surgery and chemotherapy (BVP regime). All patients on BVP (even those lost at later stages), had achieved clinical remission with the first cycle of treatment ²⁾.

1)

Burton BK. Alpha-Fetoprotein Screening. Adv Pediatr. 1986; 33:181-196

2)

Agarwal BR, Patel M, Shah BN, Currimbhoy Z, Waingankar VS, Meisheri I, Kapur VK, Murthy AK.

Endodermal sinus tumor: report of 12 cases. Indian Pediatr. 1993 Nov;30(11):1321-6. PubMed PMID: 8039857.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

<https://neurosurgerywiki.com/wiki/doku.php?id=alpha-fetoprotein>

Last update: **2024/06/07 02:50**

