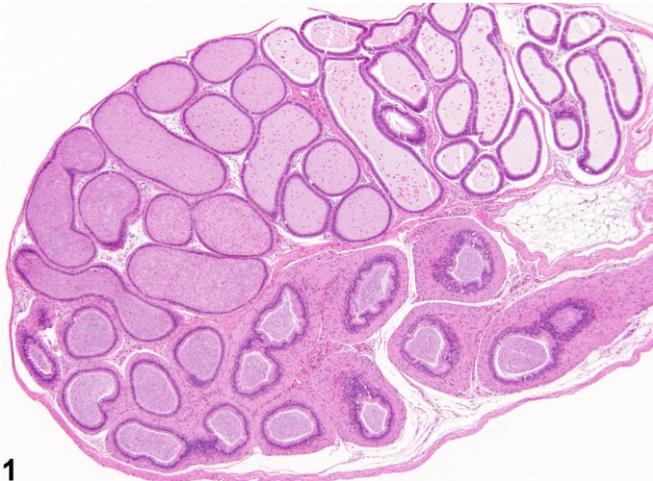
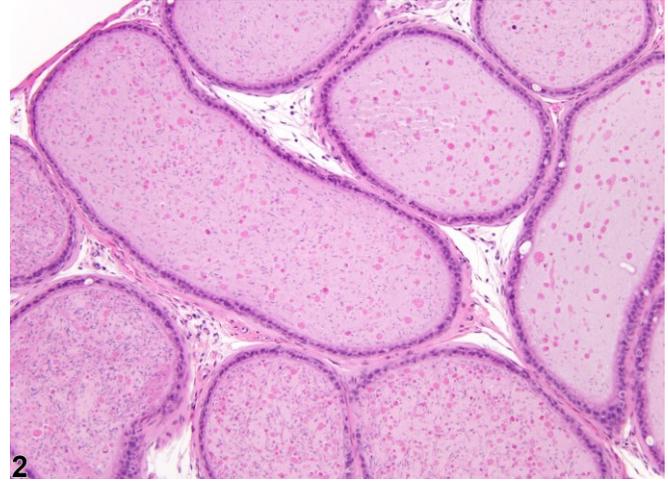


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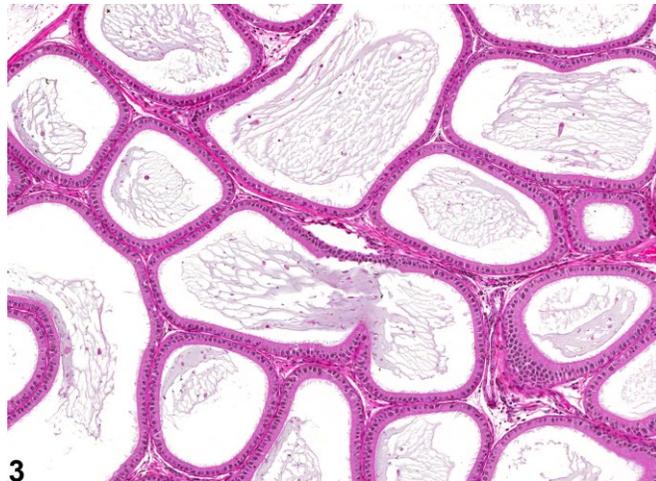
Epididymis – Hypospermia



1



2



3



4

Figure Legend: **Figure 1** Epididymis - Hypospermia. A reduced number of sperm in the epididymis in a male B6C3F1 mouse from a subchronic study. **Figure 2** Epididymis - Hypospermia. Higher magnification of Figure 1. A reduced number of sperm in the epididymis in a male B6C3F1 mouse from a subchronic study. **Figure 3** Epididymis - Hypospermia. A reduced number of sperm in the epididymis in a male F344/N rat from a subchronic study. **Figure 4** Epididymis - Hypospermia. Higher magnification of Figure 3. There is absence of sperm in this epididymal duct in a male F344/N rat from a subchronic study.

Comment: Reduced sperm content is generally caused by reduced testicular spermatogenesis but can also be due to an obstructive lesion in the efferent ducts preventing sperm from a normal-appearing testis from reaching the epididymis. Sperm normally reach the cauda in 3-5 days and remain stored



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there for a week or more. Some toxicants can cause a decrease in transit time, thereby reducing normal sperm content (with no effect on spermatogenesis). Reduced testosterone levels will also result in reduced survival of sperm in the epididymis. A reduction in sperm is often accompanied by an increase in sloughed testicular germ cells and cell debris, due to associated spermatogenic disturbances in the testis. A reduction in sperm content is also often associated with a reduction in the size of the ductal lumen (ductal atrophy) due to the reduced volume of sperm and fluid. There may be a reduction (oligospermia) or a total absence (aspermia) of sperm; the degree of reduction can be represented using severity grades. Peripubertal rats (8-10 weeks) and mice (5-7 weeks) may have normal-appearing testes, normal amounts of sperm in the caput and corpus, but reduced amounts of sperm in the cauda because they have not built up full sperm reserves. This should not be considered abnormal in animals of this age.

Recommendation: Reduced sperm content should be recorded and graded and should be discussed in the pathology narrative if the incidence and/or severity appears to be related to chemical administration. Bilateral involvement should be recorded when present. It is important to compare any potential changes with age-matched controls and to correlate with any available sperm count data. Any correlation with disturbances in testicular spermatogenesis should also be noted in the pathology narrative to aid interpretation. Correlation with any spermatogenic disturbances should also be noted in the pathology narrative to aid interpretation.

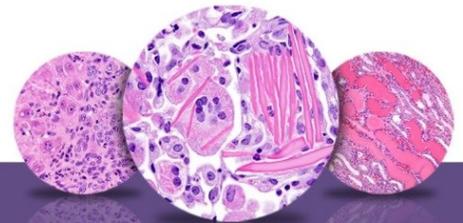
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Epididymis – Hypospermia

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