

## Deflated Muzzle

One of the major defining physical characteristics of the Chinese Shar-Pei is the large muzzle. This is due to the hyaluronan levels in the breed which contributes to the wrinkling, large padded muzzle and cutaneous mucinosis. All Shar-Pei can deflate to some degree although some have a more padded muzzle than others and the deflation would be more noticeable. It may be a good idea to measure the circumference of your dog's muzzle using a sewing flexible tape measure. Muzzle deflation is caused by decreased hyaluronan production and there are three causes:

1. Anti-inflammatory drug therapy is a major cause. This occurs because these drugs directly decrease hyaluronan production. Drugs known to cause deflated muzzles include:
  - NSAIDs – such as aspirin, carprofen (Rimadyl™), ketoprofen (Ketofen™), etodolac (Etogesic™), acetaminophen (Tylenol™), deracoxib (Deramaxx™), tepoxalin (Zubrin™), firocoxib (Previcox™), Piroxicam (Feldene™), meloxicam (Metacam™) and others.
  - Steroids – prednisolone, prednisone, dexamethasone, others.
  - Antihistamines – chlorpheniramine, diphenhydramine (Benadryl®), others.
2. Stress – the release of substances related to stress will also deflate the muzzle. Stress should not always be thought of in terms negative things but any change in the dog's normal routine can be thought of as stress. Positive stresses may consist of over activity, heat cycles, new people in the household, etc.
3. Illness -- This is the most important cause of deflated muzzle and one that Shar-Pei owners need to be very aware of. Think of the muzzle in this breed as the pop-up timer on the Thanksgiving turkey. When the muzzle deflates something is wrong and you should see your veterinarian quickly. FSF is a common cause of deflated muzzle as is kidney failure.