



OFA GSMD Health Survey

GSMDCA and its Health Committee through the Orthopedic Foundation for Animals (OFA) has conducted several rounds of a Greater Swiss Mountain Dog breed health surveys (most recently, 2012 and 2020). The latest version of the survey was available for completion on the OFA website for 15 months, from September 3, 2019 until December 31, 2020. As of the closing date, 726 respondents participated as compared to 1,223 participants in our last survey in 2012.

Note regarding the data collection and incidence calculations:

OFA does not require respondents to answer all questions. For the purposes of this article, percentages for relevant questions were calculated based upon the number of responses to the question. Therefore, the data provided in this article may not match that published on the OFA website. Thus, the data here is a more accurate reflection of incidence rates.

The following tables provide a comparison of the overall health and temperament issues seen within the GSMD breed, including both results from the 2012 and 2020 studies.

	2012	2020
Gastrointestinal	15.3%	13.6%
Orthopedic	15.9%	12.9%
Kidney/Urinary	11.3%	12.9%
Cancers or tumors	10.7%	12%
Allergies	12.9%	11.3%
Neurological and/or Muscular	10.1%	10.7%
Female Dog Reproductive	3.7%	5.4%
Eye	6.1%	5.3%
Skin	6.3%	5.1%
Temperament Issues	4.7%	4.6%
Dental	3%	4.6%
Male Dog Reproductive	0.7%	3.1%
Ear	2%	1.8%
Endocrine	1.4%	1%
Blood/Lymph	1.3%	0.8%
Immune System Disorders	1.2%	0.8%
Respiratory	0.9%	0.8%
Liver	0.8%	0.8%
Cardiovascular	0.4%	0.7%



The most recent survey shows that the top breed health concerns are virtually the same as the 2012 study with a few notable differences:

- In 2012, the top three health concerns were in order 1. Orthopedic, 2. Gastrointestinal and 3. Allergies. In the 2020 survey, the top health concerns were 1. Gastrointestinal, 2. Orthopedic issues, and 3. Kidney/Urinary issues. The following narrative provides a little more detail into the top health issues identified in the 2020 survey.

Gastrointestinal Issues

Of the 223 participants responding that their dog has gastrointestinal issues, the majority list “lick fits” as the number one problem. The incidence of gastrointestinal issues across the 726 respondents is as follows:

	2012	2020
Lick Fits	7%	5.1%
Inflammatory/Irritable Bowel Disease	3.7%	3.6%
Bloat, with or without torsion	4.4%	3.0%
Bile vomiting	7.8%	3.0%
Other	1.6%	1.7%
Splenic Torsion/Enlarged Spleen	1.7%	1.4%
Colitis	2%	1.0%

The results differ somewhat from 2012 when bile vomiting was the #1 response.

Of note, our most recent survey revealed that 29.3% of respondents reported that their dogs received prophylactic gastropexies as compared to 19.7% in 2012.

Orthopedic Issues

As in 2012 the top orthopedic disorders in the breed remain Arthritis, Hip Dysplasia, Shoulder Osteochondritis Dissecans (OCD) and Elbow Dysplasia. The percentage of dogs with arthritis issues remains relatively stable from year-to-year and are not unexpected given the size of our dogs and the aging process. The following shows a trend of the dysplasia and OCD rates within the breed. The percentages were derived from dogs that were radiographed as reported in the health surveys and evaluated by OFA.



	2001 Survey	2012 Survey	2020 Survey
Hip Dyplasia ¹	15.7%	8.1%	8.5%
Shoulder OCD	15.3%	12.8%	1.4%
Elbow Dysplasia ²	9.6%	8.0%	5.4%

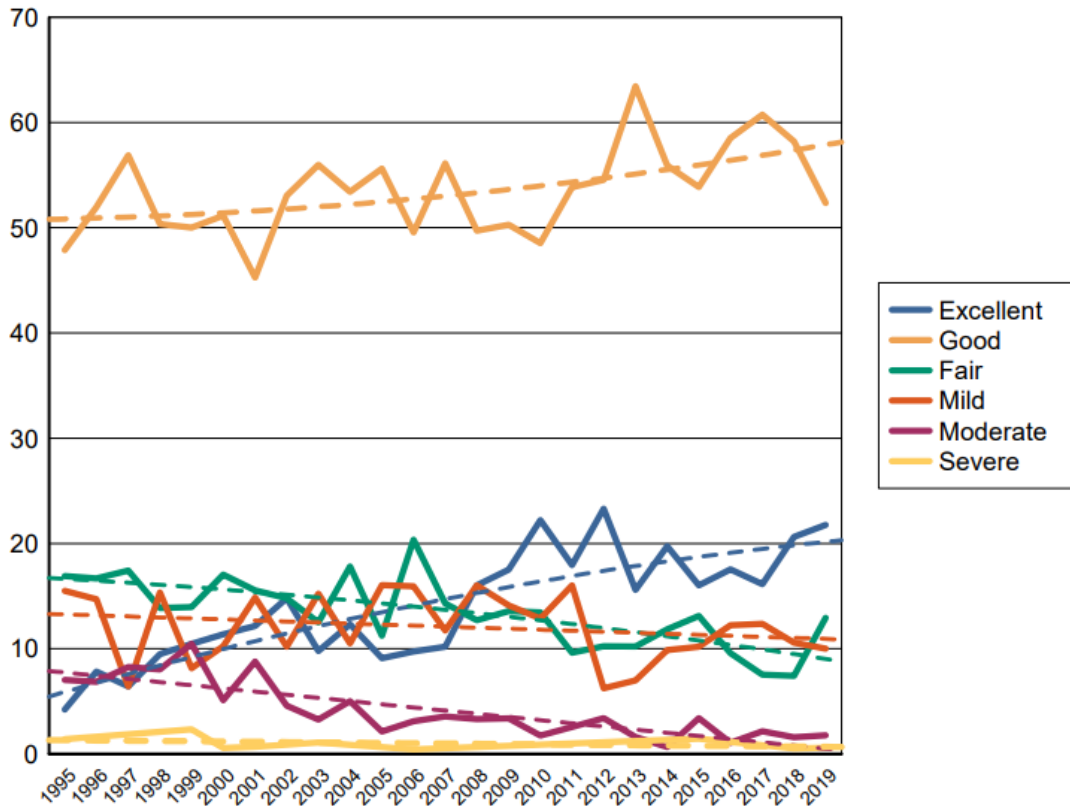
¹Hip Dysplasia defined as OFA Borderline Mild, Moderate or Severe

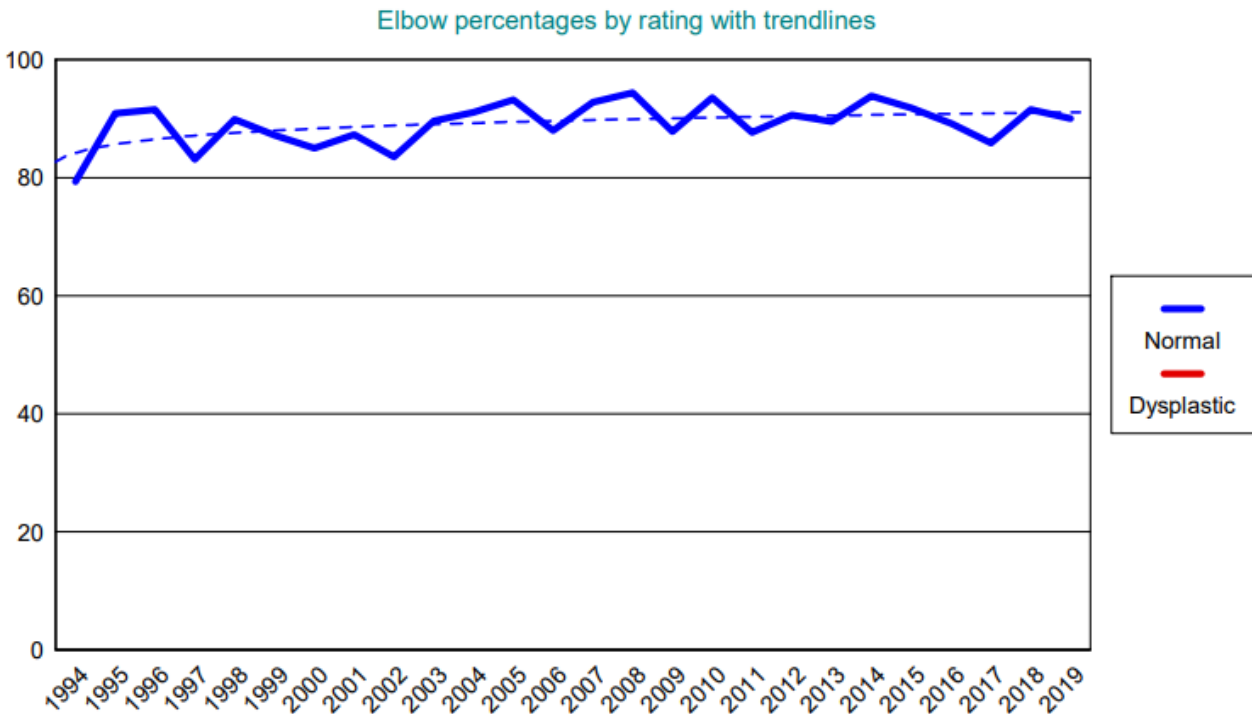
²Elbow Dysplasia defined as OFA Grade 1, Grade 2, or Grade 3

It should be noted that the percentage of dogs with Shoulder OCD has dropped significantly since adding radiographic shoulder examinations to the GSMD CHIC requirements in 2015.

With permission from OFA, the following graphs show the GSMD trends for OFA hip and elbow ratings from 1995 through 2019:

Hip percentages by rating with trendlines





In 2019, for both hips and elbows, nearly 90% of GSMDs are receiving passing grades from OFA.

Kidney/Urinary Tract Issues

One concerning trend emerging from the most recent survey is a rise in the percentage of GSMDs diagnosed with renal failure. The following table shows the difference in kidney and urinary tract issues from the 2012 survey to the 2020 survey.

	2012	2020
Renal Failure	0.8%	2.5%
Chronic Lower Urinary Tract Infection (cystitis)	1.2%	2.1%
Other	0.9%	0.7%
Familial Kidney Disease	0.2%	0.3%
Renal Dysplasia	0.2%	0%

Urinary Incontinence continues to be a common problem occurring in 12.4% of the female GSMDs surveyed.



Cancers/Tumors

Of the 72 cancers reported, the vast majority, 38 (52.8%), are mast cell tumors. Overall, the cancer rates in GSMDs increased slightly, from 10.7% in 2012 to 12% in 2020. Again, based upon the limitations with the OFA survey, we are unable to report the age of onset or outcomes for individual categories of cancers.

Neurological and/or Muscular Issues

The most significant condition within this category is epilepsy/seizures from known or unknown causes. Of the 726 respondents, 40 dogs or 5.5% indicated that their dog is affected by this disease. In 2012, the percentage of GSMDs affected was 6.1%.

One item to note is the change in medication practices for GSMDs treated for seizure disorders.

	2012	2020
Phenobarbital	38.6%	31.5%
Levetiracetam (Keppra)	7.9%	24.7%
Potassium Bromide	22.9%	20.5%
Gabapentin	6.4%	8.2%
Zonisamide (Zonegran)	13.6%	6.8%
Other Medication	2.1%	5.5%
No Seizure medication	8.6%	2.7%

While phenobarbital remains the most common prescribed medication for GSMDs with epilepsy, the use of Levetiracetam (Keppra) has increased significantly since 2012. Without outcomes data related to each medication protocol, we cannot comment on the reasons for this change.

In 2019, the GSMDCA and its Health Committee contributed funding to the AKC Canine Health Foundation's study being conducted by Karen R. Muñana, DVM, MS; North Carolina State University titled "Is Gut Dysbiosis Associated with Canine Idiopathic Epilepsy?" The study is ongoing.

Reproductive Disorders

It is noteworthy that this survey showed an increase in both male and female reproductive issues. The most reported issues reported for males were Prostatitis, Sterility, and Cryptorchid/Monorchid, in that order. Lack of interest in a female was the #1 reproductive issue reported for males in the 2012 survey.

For females, the #1 reproductive issue in 2012 was difficulty whelping. Difficulty whelping dropped to the #8 position in 2020 survey, replaced by pyometra, cystic ovaries, uterine inertia (dystocia), litter



reabsorption, false (pseudo) pregnancy, failure to maintain serum progesterone level to adequately maintain pregnancy, and failure to conceive, in that order. The reported incidence of pyometra was 1.9%, compared to .7% in 2012.

Conclusion

The Health Committee thanks those of you who participated in the most recent health survey. These surveys help us to understand key trends in Swissy health, and target financial resources toward research and resources for GSMD breeders and owners.