



## Bovine Congestive Heart Failure: an Introduction

### Background

Bovine congestive heart failure (BCHF) was first described as “high mountain disease”, causing heart failure in cows kept at high altitudes.

In the 1970s, a new disease presentation was reported, occurring in feedlot cattle at moderate altitude.

There is evidence that BCHF is increasing in frequency in North American cattle, and also occurring at lower altitudes, over time.

At a recent WeCAHN beef network meeting, BCHF was suggested as a possible agent in an outbreak of sudden deaths during extreme cold weather, in replacement heifers being backgrounded at a local feedlot.

For the following description, BCHF will specifically refer to this emerging disease of heart failure in fed cattle, at moderate altitudes.

### Causes

- Heart failure may occur, rarely, in any age of cattle, for a variety of reasons including birth defects, ionophore toxicity, and in older animals, hardware disease (traumatic reticulo-peritonitis) or cancer.

### Causes continued:

The causes of BCHF, or congestive heart failure in cattle at moderate altitude, are still being studied.

Factors associated with BCHF include:

- Pneumonia, which can increase pulmonary arterial hypertension and make the heart work harder.
- Genetic factors have been suspected for some time of playing a role in cattle developing BCHF. Extensive work has been done, especially in the U.S., to identify specific SNPs which increase the probability of an individual animal developing BCHF.

### Clinical signs

- Swelling in brisket and underline.
- Difficulty breathing.

There is no effective treatment for this disease.

A great overview of stages of BCHF, including pictures of cases, is available here:

<https://www.ars.usda.gov/plains-area/clay-center-ne/marc/bchf/bchf-main/>

If one or more of your animals shows brisket or underline swelling, your veterinarian can help you with diagnosis and discuss potential follow-up such as genetic testing.