
**Abstract**

The time periods and the behavioural pattern of mink euthanized with carbon dioxide (CO$_2$), 100% and 70%, carbon monoxide (CO), 4%, and nitrogen (N$_2$), 100%, are described. The time between the placement of the animal in a glass box and the first symptoms of incoordination (phase I), the period to loss of consciousness (phase II), and, finally, the coma phase until cessation of respiration (phase III) using three groups each of 10 pastel male mink each were recorded.

Phase I times ranged from 14 s for CO$_2$, 31 s for N$_2$, and 49 s for CO. In phase II, the difference was even more pronounced, being 5 s for CO$_2$, 15 s for CO, and 45 s for N$_2$. In phase III, the time was 58 s for N$_2$, 134 s and 151 s for CO$_2$ and CO respectively.

Hence, the critical period from the time when the animals were placed in the glass box till unconsciousness occurred (phase I and II) was 19 s for CO$_2$, 64 s for CO, and 76 s for N$_2$. The total course of euthanasia was 153 s for CO$_2$, 215 s for CO, and 134 s for N$_2$.

The following minimum times will be required before it can be judged to be safe to remove the animals: CO$_2$ and N$_2$: 5 min, and for CO: 6.5 min. In a supplementary experiment, involving a mixture of 70% CO$_2$ and 30% atmospheric air, it was not possible within the allotted time to kill adult male mink.

Convulsions, in phase III only, occurred to a varying degree in all the animals euthanized with CO$_2$ and N$_2$, and in 6 out of the 10 animals killed with CO.

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