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## 愈物學第一

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## 件成題的為為紛紛光澤。是什麼原因呢? Why do the beef slices in beef noodles have a greenish reflection?

學校餐廳的牛肉麵一直是受歡迎的一道料理,常有同學<mark>問營養師,為什麼牛肉的肉片常</mark>會綠綠的?這樣可以吃嗎?這期月刊就來為大家解惑吧。

肉類是由一束一束的肌纖維所構成,牛肉切片後肌纖維的剖面會呈現為八角型的結構體,而牛肉本身又含有微量金屬元素,所以在轉動肉片時就會有出現類似稜鏡光的反射原理,因而看見綠色的反光,這其實是一種正常的物理現象;在牛肉尤其是腱子肉和後腿肉的部位,尤其越靠近關節筋膜,就越容易有這樣的現象,而牛肉煮熟後,由於肌纖維排列比起生肉時會更加緊密,所以更容易看到這樣的反光。其實不只是牛肉,豬肉也會有這樣的現象,下次你若到麵攤切個嘴邊肉或腱子肉,就有可能也會看到這道綠光喔。

雖然說牛肉、豬肉看到綠光是正常物理現象,但若是伴隨有不好聞的氣味,甚至表面產生黏液,就很有可能是遭到微生物汙染,這樣的肉品就絕對不能食用了;吃東西的時候別忘了一邊觀察、嗅聞,有疑慮的食物不要勉強食用,以確保自身的飲食安全喔。

The beef noodles in the school cafeteria have always been a popular dish, and students often wonder why the beef slices have a greenish sheen. Is it safe to eat? Meat is composed of muscle fibers, and when beef is sliced, the cross-section of the muscle fibers appears as an octagonal structure. Beef contains trace amounts of metallic elements. Therefore, when the beef slices are rotated, a reflection similar to a prism effect occurs, resulting in a greenish reflection. This is actually a normal physical phenomenon, especially in the parts of the tendon and hind leg muscles closer to the joint ligaments, where this phenomenon is more likely to occur. After beef is cooked, the arrangement of muscle fibers becomes denser compared to when it's raw, making this reflection more apparent. It's not just beef; pork can also exhibit this phenomenon.

While it's a normal physical phenomenon for beef and pork to display a greenish reflection, if there's a foul smell or even the production of mucus on the surface, it's likely contaminated by microorganisms, and such meat should definitely not be consumed. When you eating, remember to observe and smell the food. If there are any doubts about the food, it's best not to consume it to ensure your own food safety.