Dose-length product (DLP) is a radiation dose metric that is commonly used in computed tomography (CT) imaging to estimate the total radiation dose delivered to a patient during a CT examination. DLP takes into account the length of the scanned region as well as the radiation dose delivered per unit length, which is measured by the CT dose index (CTDI).

DLP is calculated by multiplying the CTDI by the length of the scanned region. This provides an estimate of the total amount of radiation energy absorbed by the patient during the CT examination. The units for DLP are mGy-cm, which represents the absorbed radiation dose in milligrays multiplied by the length of the scanned region in centimeters.

DLP is a useful metric for comparing radiation doses between different CT scans or different CT scanners. It can also be used to estimate the radiation dose to specific organs or tissues within the scanned region, based on established radiation dose conversion factors.

Radiation dose monitoring and optimization is an important consideration in medical imaging, and DLP is one of several metrics used to help ensure that patients receive safe and effective imaging exams. By monitoring and minimizing radiation doses, healthcare professionals can help reduce the risk of radiation-related harm to patients while still obtaining high-quality diagnostic images.

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