
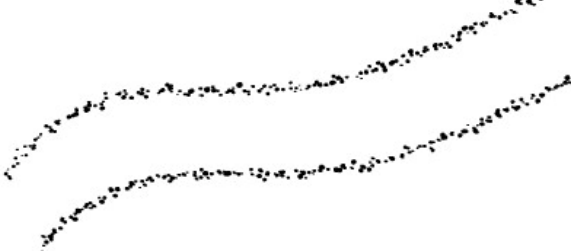

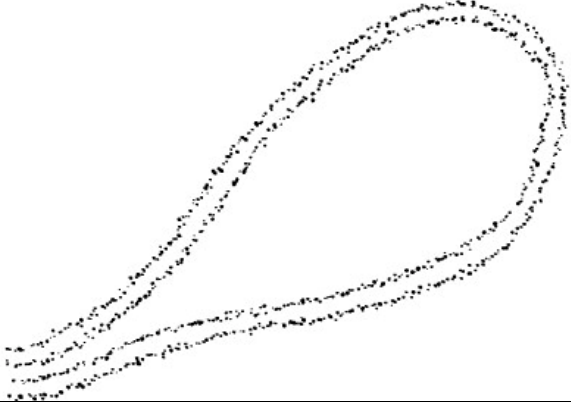
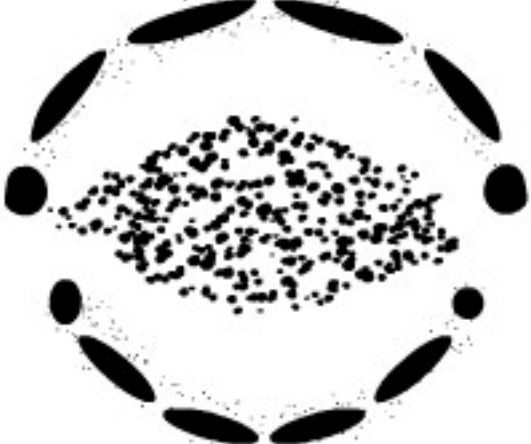




## PATTERNED BRUISES

	<p>Slap marks are a fairly characteristic and recognizable form of bruising. Occasionally a full imprint of the hand may be seen.</p> <p>More typically a series of diverging rays, making a fan shape, will be seen. At first, the rays are composed of lines of confluent petechiae. With time, underlying ecchymosis may be seen, and the petechiae will become less discreet, making a more solid line.</p> <p>Petechia form at the edges of contact, outlining the hand, while deeper ecchymoses may form under prominences of the hand.</p>
	<p>Strap marks are a form of “railroad track” or “tram track” mark. Lines of petechiae form at the edges of contact. Because the strap is flexible, it will wrap around body contours, and form a curved mark. The edge or tip of the strap may cut or abrade the skin.</p>
	<p>A board mark resembles a strap, but is straighter, and does not conform to body contours. Dips in the body may be skipped producing a break in the continuity of the mark.</p>

	<p>Loop marks are highly characteristic of abusive injury. A narrow spaced “tram track” or “railroad track” mark doubles over on itself forming a loop. Typically, this mark is the result of beating with a doubled over loop of extension cord. Sometimes a doubled over belt, striking on edge, will make this mark. It is common for the tip of the loop to cut, tear or abrade the skin.</p>
	<p>Bite marks require excellent documentation. The shape of a bite may allow a forensic odontologist to identify the biter. Excellent pictures, with a size standard in two axes, are critical. Swabs of a fresh bite may collect DNA that can be used to identify the biter as well. As a crude measure, childrens bites have less than 3cm between the upper canines, and adult bites have greater than 3cm between the upper canines. Adult dentition to the canines occurs at about 12-years-old.</p>
	<p>Pinch marks may be very distinct, or somewhat non-specific. Two, adjacent, oval bruises, the size of a knuckle or finger tip, may represent a pinch, or chance opposition. Finger nail marks outlining a clam shell arrangement of bruising is much more specific for pinching.</p>
	<p>Grip marks are comprised of oval bruises, of the size, and in the distribution of finger tips. Care must be taken to be sure other factors do not account for this distribution. For instance, if a slender child’s chest is injured on a hard edge, multiple oval bruises may develop over the rib prominences, while the intercostal space is un-injured. This has produced marks that resemble gripping.</p>