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Title	Feasibility of Using Thai Natural Rubber to Develop Prosthetic Fingers
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Abstract

A prosthetic finger is expensive as it requires high-cost imported material and skill to fabricate. This study aimed to evaluate the feasibility of developing a prosthetic finger by using Thai natural rubber. The strength of the natural rubber finger was compared with Polyvinylchloride (PVC) sheet. The appearance and color of the natural rubber prosthetic finger in three different skin tones (light, medium light and dark) were evaluated with 1-5 Likert scale (worst to excellence). ASTM D412-06ae2 standard test showed that the natural rubber had higher tensile strength than PVC about 1.2 MPa. Rating of sixty-one evaluators showed the overall appearance of the natural rubber prosthetic fingers was good/ fair, especially for the dark tone color in all aspects evaluated (skin tone, outward appearance, detail of fingers, shape and contour). The overall production excluding cost was affordable. In short, it is feasible to use natural rubber to make a satisfactory appearance and affordable prosthetic finger.