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Bloch's theorem

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Let f be an holomorphic function on a region containing the closure of the disk $D = \{z \in \mathbb{C} : |z| < 1\}$, such that $f(0) = 0$ and $f'(0) = 1$. Then there is a disk $S \subset D$ such that f is injective on S and $f(S)$ contains a disk of radius $\frac{1}{72}$.